

from
PROCEEDINGS AND DEBATES

A Boyd Hamilton

OF THE

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AMERICAN

Convention of Cattle Commissioners,

HELD AT

SPRINGFIELD, ILLINOIS, DECEMBER 1st, 2nd and 3d, 1868.

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PROCEEDINGS.

SPRINGFIELD, ILLINOIS,
Wednesday, Dec. 1, 1868.

The American Convention of Cattle Commissioners assembled in convention at Representatives' Hall, Springfield, Illinois, at 12 o'clock, M., in pursuance of the following call :

STATE OF ILLINOIS, EXECUTIVE DEPARTMENT,
Springfield, October 26, 1868.

The commissioners appointed by the several States to consider the history, nature and character of the disease among cattle known as Texas fever, and to collect and publish to the country all information possible, bearing upon the subject ; to prepare a draft of a law which shall be uniform in all the States interested in the raising, sale or purchase of cattle, and which will regulate the trade upon a safe and equal basis, and secure the most perfect protection to all parties—have agreed to hold a convention in the city of Springfield, Illinois, on Tuesday, December 1st, 1868, to accomplish these desirable ends.

Responding to this laudable movement, and believing I shall reflect the wishes of our people upon a matter of such vast importance to all, I have appointed, on the part of the State of Illinois, as commissioners, to meet and consult with those from other States, the following gentlemen : Hon. James N. Brown and Dr. H. C. Johns, heretofore appointed by the State Agricultural Society, H. N. Edwards and E. H. Piper, special commissioners of this State, and Hon. John P. Reynolds.

The commissioners of all the States and of the Dominion of Canada are respectfully invited to meet in the hall of the House of Representatives, Springfield, Illinois, on Tuesday, December 1, 1868, at 12 M., when it is hoped such action may be had as shall allay the public anxiety arising from this disease, and secure satisfactory safeguards against its further inroads upon the cattle interests.

RICHARD J. OGLESBY,
Governor of Illinois.

DR. JOHNS, of Illinois—Gentlemen, will you please come to order. I nominate Joseph Poole, Esq., of Indiana, temporary chairman of this convention.

The motion prevailed.

THE CHAIRMAN—Gentlemen and commissioners of the convention, the honor conferred upon me by this unexpected appointment is accepted with diffidence, and a perfect knowledge of my inability to fill so important and responsible a position. Permit me, gentlemen of the convention, to thank you for the honor thus conferred, and to ask your kind indulgence and forbearance towards me in the discharge of my duties.

DR. JOHNS, of Illinois—Mr. Chairman, I move that Mr. H. D. Emery, of Chicago, be the temporary secretary.

The motion prevailed.

DR. MORSE, of Missouri—I move, Mr. Chairman, that a committee on credentials, consisting of three members, be appointed by the chair.

THE CHAIRMAN—I should prefer that the appointing power be left with the convention. Will the gentleman accept of that suggestion as an amendment to his motion.

DR. MORSE—Certainly sir.

The motion prevailed, and the following gentlemen were appointed by the convention to serve on this committee: Dr. Morse, of Missouri; Mr. Howard, of Michigan; Dr. Johns, of Illinois.

MR. CHRISTIE, of Canada—I move, Mr. Chairman, that a committee of ten be appointed by the convention as a committee on permanent organization.

The motion prevailed, and the following gentlemen were, on nomination, designated to serve: Mr. Christie, of Canada, chairman; Prof. Smith, of Missouri; Mr. Messenger, of Ohio; Mr. Allen, of New York; Mr. Carter, of Maryland; Mr. Earl, of Indiana; Dr. Miles, of Michigan; Dr. Snow, of Rhode Island; Dr. Thayer, of Massachusetts; Mr. Reynolds, of Illinois.

DR. JOHNS, of Illinois—I move, Mr. Chairman, that this convention do now adjourn, to meet again at half-past two this afternoon, by which time the committees on credentials and permanent organization will probably be ready to report.

The motion prevailed.

AFTERNOON SESSION.

THE CHAIRMAN—The convention will please come to order. Gentlemen, the first thing to be presented to us is the report of the committee on credentials. Is the committee ready to report?

DR. MORSE, of Missouri, chairman of the committee on credentials—Mr. Chairman, I beg leave to submit the following report:

We, the undersigned, committee on credentials, respectfully report that we find the Province of Ontario duly represented by the following named commissioners: Hon. D. Christie, A. A. Burnham, F. W. Stonc.

The States, so far as represented, by the following:

Illinois.—John P. Reynolds, Dr. Wm. Kile, H. N. Edwards, E. A. Piper, Dr. H. C. Johns.

Indiana.—Joseph Poole, James Matthews, A. Earle.

Maryland.—Dr. Nathaniel Brown, Dr. Richard Mackall, Dr. W. S. McPherson, John M. Carter.

Massachusetts.—Dr. Elisha F. Thayer.

Michigan.—Dr. M. Mills, Sanford Howard.

Missouri.—Dr. L. D. Morse, Prof. Spencer Smith, H. J. Moore.

New York.—Marsena S. Patrick, Lewis F. Allen, John Stanton Gould.

Ohio.—James Stockdale, Dr. Wm. Clendennin, D. McMillan, Thomas Reber, E. Messenger.

Rhode Island.—Dr. E. M. Snow.

Wisconsin.—Prof. P. A. Chadbourne, B. R. Hinckley.

We also recommend the following named gentlemen to seats in the convention, as honorary members: Arthur B. Barrett, Jefferson K. Clark, G. O. Kalb, delegates of the St. Louis Agricultural and Mechanical Association. Also, Dr. M. Morris, of New York; Dr. John H. Rauch, of Chicago; H. D. Emery, of Chicago; Joseph A. McCoy, of Abilene, Kansas.

The report was received and adopted.

THE CHAIRMAN—Gentlemen, the next thing in order is the report of the committee on permanent organization. Is that committee ready to report?

MR. CHRISTIE, of Canada, chairman of committee on permanent organization—Mr. Chairman, the committee beg leave to submit the following report:

That Hon. Lewis F. Allen, of Buffalo, be the president of the convention.

That Hon. D. Christie, Thomas Reber, Dr. Richard Mackall, General M. S. Patrick, P. A. Chadbourne, E. F. Thayer, Sanford Howard, Capt. H. J. Moore, Dr. H. C. Johns, Joseph Poole, Dr. N. S. Townsend, A. B. Hamilton, and Dr. Snow, be vice-presidents of the convention.

That J. P. Reynolds, of Illinois; Dr. L. D. Morse, of Missouri; and Dr. Moreau Morris, of New York, be the secretaries of the convention.

That Messrs. Ely, Burnham & Bartlett be the official stenographic reporters to the convention.

All of which is respectfully submitted.

DANIEL CHRISTIE, *Chairman.*

The report was received and unanimously adopted.

MR. REYNOLDS, of Illinois—Mr. Chairman, I move that a committee of three be appointed by the chair to escort the president of the convention to his seat.

The motion prevailed.

THE CHAIRMAN—I appoint Mr. McMillan, of Ohio, Mr. Johns, of Illinois, and Mr. Earl, of Indiana, to perform that duty.

The gentlemen named conducted Mr. Allen to the chair.

THE CHAIRMAN—Gentlemen, permit me to introduce to you the president of this convention, Hon. L. F. Allen.

THE PRESIDENT—Gentlemen of the convention, I feel highly gratified and as highly honored at being selected by so respectable and dignified a body of gentlemen as I see before me, to be their presiding officer on this occasion. You will kindly excuse my inexperience, the want of tact I may exhibit, and the many lapses of duty that may occur during such time as I may fill the chair. I only say that I will serve you according to my best abilities.

As many conflicting interests may, perhaps, arise, and considerable discussion may ensue, I beg leave to suggest that our time is precious, and that remarks should be made as short and comprehensive as possible. I will, myself, set the example, by saying no more, but simply ask you to proceed to the consideration of the subject which has brought us together.

Dr. MILES, of Michigan—Mr. President, as it seems desirable that there should be some name for this convention, I therefore move that it be called the AMERICAN CONVENTION OF CATTLE COMMISSIONERS.

The motion prevailed.

Mr. POOLE, of Indiana—Mr. President: I move that the gentleman from New York, Mr. Gould, address the convention, as he has devoted a great deal of consideration to the subject in which we are all so much interested.

The motion prevailed.

Dr. JOHNS, of Illinois—Mr. President: I move that his excellency, the Governor of Illinois, be invited to a seat beside the president. The motion prevailed, and his excellency accepted a seat by the side of the president.

Mr. GOULD, of New York—Mr. President and gentlemen of the convention: At the suggestion of the cattle commissioners, delegated by his excellency, the governor of the state of Illinois, the New York commissioners issued a circular, under the direction of the governor of that state, calling a convention of the different states and the province of Ontario, of Canada, to meet in Springfield, at the present time. The circumstances of issuing this call were briefly these: It was found that an alarming and wide-spread plague was devastating the western regions of our country. The proper remedies were not understood; the modes of prevention were not at all comprehended, and it was evident that our flocks and herds would be swept away unless prompt measures were taken.

We, in the state of New York, have one million two hundred and fifty thousand cattle; their value is immense, for it is not merely a value which is represented by their value for food, but we have a vast number of animals worth from three to five thousand dollars for breeding purposes. In addition to this, sir, our flocks and herds are mainly devoted to the production of milk and its compounds. The milk sold and the value of the cheese and butter manufactured in the state of New York, amount, annually, to twenty-five millions of dollars.

I will not attempt, sir, to state the statistics of the great west, for gentlemen who are now present, know far better than I what great interests they have at stake in the preservation and propagation of the cattle which surround us on every hand.

It seemed to us, therefore, that every exertion should be used to learn all that could possibly be learned in relation to this disease—its character, its prevention and its remedies. We learned the value of the old American maxim, that in "union there is strength." Each of us knew something, and we thought that by bringing together our varied contributions, we might, in the aggregate, arrive at a degree of wisdom in relation to these matters, which, acting as isolated individuals or isolated states, it would be entirely impossible for us to reach. Therefore it was that this convention was called together—that was one object. Another

matter which interested us, and which developed itself during our investigations regarding this cattle disease, was the condition in which animals are brought to New York; and we believe that the results of those investigations are of the greatest importance to the west as well as to the east.

We found, without any kind of controversy whatever, that cattle were losing from seventy to one hundred pounds in their transportation from Illinois to the state of New York. We found, too, in testimony of the most experienced drovers, that this was entirely unnecessary; that it was a waste of cattle flesh that was exceedingly injurious to the producers here upon the prairies, and equally injurious to us of the east, who need every pound of meat that can be brought to our markets.

It was suggested that laws were absolutely necessary to protect us from the invasion of the plague, and also necessary to protect us against that feverish condition in which our meats reached us, and against the great loss in the weight of cattle which arose from the rapid and cruel transportation of animals, for such enormous distances, without food or drink.

We knew, sir, that it was utterly impossible for any one single state to act alone, where interests were so various. The interests of the farmer, of the drover, of the butcher and consumer, of the small and of the large transporters and producers, and in short, the interests of whole communities, seemed, at first glance, to be so antagonistic, that we felt that unless all of the states concerned were induced to join in one common system of legislation, the mighty evils to which we have alluded, would continue to affect us. We supposed that nothing could be easier than for a convention of intelligent and trustworthy gentlemen, from each of the states represented on this floor, to agree among themselves as to the best modes of remedying these difficulties—remedying them in such a way as to protect us against the ravages of disease, and at the same time prevent the most perfect freedom of commerce, which was compatible with the safety of our flocks and herds. We supposed, also, that we might easily, after suitable conference, agree upon the terms of a series of propositions which might be submitted to the legislatures of the several states, and be by them put into legal phraseology; that these enactments might be adapted to the various circumstances of the states interested, at the same time securing a substantial commerce in the means to

be adopted and the remedies to be applied, in order that one state might work into the hands of another and thus prevent all dissatisfaction.

In order, sir, to accomplish this object, I will, at a proper time, move the appointment of a committee to consider the terms of such a law as I have described—such a law as can be submitted to the various state legislatures, and upon the terms of which we can also agree—and by which, also, some legislative measures may be adopted whereby cattle may be conveyed from Illinois and other western states to New York and other eastern states, without that terrible loss of valuable food which is an inevitable incident of the present methods of transportation.

It seems to me, sir, that such a committee, judiciously appointed, may easily bring before us a series of propositions, which, when discussed, and united in, will be adopted, without hesitation, by the legislatures of the different states, and which will be productive of incalculable benefit to the country at large.

I might stop here, sir, but having been requested by many delegates on this floor, who are deeply interested in this cattle disease, to state what we have ascertained in relation to it in New York, I propose to spend a few moments in complying with their wish. I do this for the two-fold purpose of, in the first place, enlightening those who may be ignorant in relation to this matter, and in the second place, of showing gentlemen where the information which we have obtained can be readily and judiciously supplemented by the knowledge acquired by members from the west and from Canada, who will thus see at once, as I proceed, the exact points where they can the more enlighten this assembly, and whereby we can have a full understanding of the matter in all its bearings.

I will, therefore, sir, with your permission, state what I have ascertained to be the external symptoms of the disease—those symptoms which are patent to all. It is very probable that many other symptoms have been observed than those which I shall relate, and if gentlemen who follow me will supplement the omissions which I make, we shall be enabled, before we are through, to have a complete description of the disease, in all its various aspects throughout the country.

With regard to the external and obvious symptoms. The first thing which we observe is, that the animal drops its head below

the level of the back ; next, (and this is one of the most important points) that there is a peculiar expression of the eye, which I, at least, have never noticed in any other form of disease whatever, and which I call a stupid stare. Gentlemen who are accustomed to cattle, know very well that there is a staring eye, which is associated with wildness, when the animal is terrified, but this to which I refer differs entirely from that. The next point is roughness of the coat, though this symptom has not always been found in our experience, for some of the sickest animals that I have ever seen have had smooth coats. But generally speaking, this rough coat is one of the characteristics of the disease.

The next noticeable point is the appearance of the urine, which is almost black. A person without any particular experience, regarding this symptom, would say it contained blood, but on microscopical examination it is found not to be blood, but only the coloring matter of the blood. This is, also, however, a rather uncertain symptom. It is true we do find it in a great majority of cases, but in others, and among the sickest animals I have seen, the urine has been perfectly clear and limpid.

The next symptoms are the staggering gait and weakness of the limbs. It seems as though the animals had been attacked with paralysis of the muscles of the extremities, so that when they attempt to go forward they tremble and present an appearance as if walking over glare ice. These symptoms are almost unmistakable, as they have never been met with to the same extent, and presented in the same manner, in any other previous disease.

Again, the spine, in most cases, is arched. Ineffectual efforts are made to dung. This symptom is not always present, but in almost every case this arched back is one of the most positive external characteristics of the disease.

Then comes drooling from the corners of the lips. We often see that, to be sure, in healthy cattle, but the peculiarity of the drooling which characterizes this disease is that the drooled matter is filled with air bubbles, and may be described as a "frothy" drool. Sometimes blood is seen in the stools, but this is very rare, and it can hardly be considered a characteristic of the disease.

Sometimes the bowels are constipated and sometimes very loose, so there is no certain rule as regards that. In every case, however, the bowels are in an unnatural condition.

We sometimes see mucus discharged from the nose, but this, in our experience in New York, is rather an uncommon indication.

A still less common symptom is a yellowish rheum issuing from the eyes. I have seen that occasionally, but it has happened very rarely in our experience.

Now, gentlemen, when we find these symptoms or any other of them present, we introduce into the rectum or dung, as butchers call it, a thermometer prepared especially for that purpose, a sample of which I have now before me. The animal is held by the nose in a manner well known to us all, and the thermometer, which, by-the-way, is a self-registering one, is introduced into the rectum, and held there for two or three minutes. Whenever we find the temperature over 103 degrees, two or three of the symptoms above named being also present, you may be absolutely sure that you have a case of genuine Texas cattle fever. This furnishes the crucial test, which has never yet failed in a single instance. Let me give an illustration of the value of this instrument, in determining the presence or absence of the cattle disease. A large number of cattle passed through Amenia, Dutchess county, New York, which were very seriously diseased, and which were arrested by our assistant cattle commissioner there, as being infected with the Texas fever, but on the introduction of a thermometer, the temperature was found not to exceed 101 degrees, which sufficiently showed an error in diagnosis. On examination, it was found that those animals had sickened, not with Texas fever, but with pleuro pneumonia, and, on being treated for that, recovered.

Now, right here, I wish to impress upon the cattle owners of this great western country, the necessity of using this instrument. By so doing, they will save themselves a great deal of anxiety; it would clear away every uncertainty, and point out unmistakably the proper course to be pursued, for the moment that the thermometer rises above 103, in connection with the symptoms I have spoken of, there can be no doubt of the presence of the Texas fever. If it rises to 107 degrees, that animal must die; it is a sure sentence of death; we may as well cut the throats of those cattle at once, for there is no possibility of their recovery. Between 102 and 105 degrees, it is possible that rest, food and suitable medication may restore them to some degree of health, but, after

all, the sooner the animal is destroyed the better, after this instrument indicates the temperature of which I have spoken.

Again, the pulse is very rapid. Generally speaking, it will be found to be 120 strokes in a minute, while in a healthy animal it rarely rises above fifty-eight or sixty, so that when you find this great acceleration of the pulse, you may be sure that the case is one of exceeding gravity.

Finally, if the nose is held over the animal, particularly in the region of the flank, you will detect a peculiar odor, which, once being smelled, can never be forgotten. It is very hard to describe this scent, but I will approximate as near as I am able, perhaps, by saying that it is a decomposed gamey odor—something like that of game which has been kept a little too long.

These complete, as far as we have observed, the external symptoms which indicate the presence of the cattle disease.

I now pass onward to the description of the internal characteristics of the disease, as disclosed upon post mortem examination. The first thing that strikes the eye, upon opening the animal, is the greenish-yellow, and sometimes brownish, appearance of the fat; the lean parts, particularly the muscles between the ribs, are of a dark-brown mahogany color. I think I may venture to say that whenever you find these peculiar appearances of the fat and the lean, the animal has died with the Texas fever.

The liver is almost invariably found to be enlarged, and when cutting into it, the knife blade has a peculiar fatty appearance, as of having cut lard. On examining this enlarged liver, through the microscope, certain small spots will be found, surrounded by an octagonal boundary, with minute lines radiating from these octagonal boundaries to the center, and, on examining carefully, you will see in the center of this octagon, a round yellow spot, which, on a still further microscopical examination, is found to consist of bile. These spots are crowded closely together. This is an irresistible evidence of the disease; and, examining through the microscope, we can make no mistake regarding the cause of the animal's death.

We come now to the spleen, where the ecchymosis is always found. The color of the spleen, in a healthy animal, as you all well know, is a beautiful, pearly gray; but, when the animal is diseased, it assumes the appearance of castile soap—white and dark, mottled—the dark parts being of a deeper color than is

usually found in the soap. On cutting into the spleen, it is found to be exceedingly dark and black, and almost always there is a thick fluid exuding therefrom. Those of you accustomed to looking at healthy spleens, or melts, I believe they are sometimes called, will have no difficulty in recognizing, in the anterior portion of this organ, a departure from its healthy condition. The enlargement of this organ is sometimes enormous. While on my way to this convention, I found at Buffalo two Texas steers, in the last stages of the disease. On examining the spleens, they were found, by actual measurement, to be two feet five inches long, with an average breadth of five inches and three quarters, and measuring through the center three and one quarter inches. This enlargement of the spleen is an inevitable concomitant of the disease, and this, as I have said in regard to the liver, indicates it unmistakably.

The kidneys do not present so great regularity of appearance. Sometimes they present a tolerably healthy appearance, while at other times they are found, when cut into, to be filled with a dark, bloody matter, generally somewhat darker than is natural. Still, this is not very common.

The third and fourth stomachs are more or less inflamed, and it may be proper to enter rather more fully into the description of their appearance. The manifolds generally contain, as is found on turning over the leaves, half digested food, in a very hard condition. In the Texas steer, which we dissected at Buffalo, we found that every leaf was covered with small, round and very hard substances, having the appearance of gun wads—the outer leaves containing larger ones than the inner—the gun wads gradually diminishing in size from the outward to the inner. These substances adhered so tenaciously that whenever they were pulled away the lining membrane was also torn away from the stomach with them. This may not always occur, but usually the digested food in the manifolds of a healthy animal is much softer and of less consistency than it is found to be in an animal diseased with the Texas fever, when it is always harsh, hard and dry.

We come now to the last stomach—the obomassum or rennet. The upper part of that stomach consists of folds, arranged as a lady's scarf is folded. Generally speaking, a considerable portion of that is found to be a very dark red, and in the tops of the folds there are sulcations which, in most cases, are filled with a sort of clotted blood.

Descending to the lower part, near where the stomach communicates with the smaller entrails, we find four or five inches of that, presenting the appearance of Russia leather, having large papillæ ascending from the surface, the color of which, in the natural state, is about as near the external color of this capitol as any thing I can think of, and which has no appearance of ulceration whatever. But, in diseased animals, you will invariably find deep ulcerations in this portion of the rennet, and nothing is more characteristic of the disease than these same ulcerations. In the Texas animal examined at Buffalo, we found a large ragged ulcer, two inches long and an inch broad, the ends of which had been drawn inward in such a way as to raise up the surface, and cause the ulcer to be fully half an inch deep. This is the largest one that I have ever seen, but they will be found in almost every period of the disease, scattered over portions of the stomach.

The rectum is generally inflamed, and that in longitudinal lines, about an inch apart, through the whole of it. The lower part is generally completely engorged with blood, in a very high state of congestion.

These are, then, the internal indications of the Spanish fever.

Coming to the blood, we find that it is generally lighter than usual, and, under the microscope, many of the blood discs are found to be not perfectly round, but presenting an appearance as though saw teeth had been cut into the edges, one half appearing to be cut off. In other words, we have seen them like the new moon, the serrations being in the anterior of the curve. These peculiarities of the blood discs are very marked under the microscope.

Speaking chemically in relation to the blood, the Spanish cattle disease may be described as one which destroys the blood corpuscles, substituting water for blood. My memory for numbers is not very good, but my impression is that our New York chemists have found the blood of animals suffering under this disease to contain eight hundred and seventy parts of water to one hundred and thirty of blood, taking one thousand as the basis. This is one of the most striking features of the disease.

The bile is generally thickened. As expressed from the gall bladder of a healthy animal, it is very fluid and limpid, but in a diseased animal it has a tarry appearance, flowing in flakes.

I come now to a point which has been observed with a great

deal of care and minuteness by the board of health of the city of New York, headed by Dr. Harris, and by the board of health of Chicago, headed by our honorable member Dr. Rauch. A minute point has first been observed in the blood, which, after a time, enlarges, and presents an ear or kidney-like shape. It then still further enlarges, continuing, however, of the same general form, but having two nuclei. My friend, Dr. Morris, the assistant commissioner from New York, will give you further information on this point, and I simply alluded to it, in order to lay the foundation for certain general ideas which I wish to impress upon the minds of this convention. This minute spore, when transplanted from the subject to an apple, the rind of a lemon, or any other similar object, and kept at a temperature of ninety-eight degrees, grows and develops very peculiarly; and in regard to this, also, my friend, the Doctor, will have something to say. The growth of these spores has enabled the scientific men of our commission to determine with accuracy this—that they belonged to the ordian family—which is the same as that to which mildew found on the grape leaf belongs. The genera, and species, may be said to be the *tilletia caries*.

The heart and lungs generally present a healthy appearance, though there are some exceptions to this rule. So far as our experience has gone, the lungs, especially, are generally in a sound condition.

The brain is occasionally softened. In the bullock examined at Buffalo, to which I have already alluded, the brain, from the surface to the corpus callosum, was so softened that it could be scraped out with the finger, as one would scrape out batter. The surface of the brain is injected with venous blood, and presents also a very marked appearance.

Another very remarkable discovery made by post mortem examinations, and one very well worthy your consideration, is this: that on handling the viscera of an animal that has died from the Texas fever, the hands are affected with a smarting sensation very similar to that produced by dabbling in mustard water. I know of no other instance in which the handling the remains of a diseased animal is attended with this peculiar sensation.

I have now given you an exact description of the external and internal manifestations of Texas fever, so far as we have observed them in New York.

I understand there has been some question at the west as to whether Texas cattle ever do have this disease, and we have been told, again and again, that they do not. I need not repeat the remarks that I have already made, but I would like to say that during the past week I have seen two Texas cattle as sick with it as any animals I ever saw. We have the testimony of Prof. Gamgee, who saw six Texas cattle laboring under this fever. Ninety-four Texas cattle were slaughtered in New York, early in September, which presented unmistakable evidences of the disease. We, ourselves, while on our way hither, stopped at LaFayette, Indiana, where we saw one hundred and forty-two Texas cattle slaughtered, and we found that, although they were in a healthy condition at that time, there were unmistakable marks of the disease. You, yourselves, this morning, at the slaughter house, saw the unmistakable evidences of disease presented by the animal there killed; and on comparison of that animal with the native animal killed immediately afterwards, you could not but have seen the difference between them. I therefore need not dwell, as otherwise I should feel it my duty to do, upon this topic, after all this proof which shows so conclusively that Texas cattle can have this disease.

You may ask me why it is that so many individuals, familiar with Texas cattle, should take the stand which many of them do in regard to this disease. My answer to this would be very simple. You know that Indians are said to be hardier than we are. Bring an Indian here and he will run farther than any of us, hold a weight much longer, and be less liable to very many diseases. I say that the reason of all this is that the Indians are so exposed, and undergo so many hardships during infancy, that those who have any weak spots soon die. So it is with the Texas cattle; they get no consideration; the calf is obliged to fight the battle of life for itself, and if too weak to do that must die at an early age. Therefore it is that these cattle, being so strong and hardy a set of animals, are better able to contend with the disease than our more delicate breeds. But, that they do succumb to this scourge, in numerous instances, cannot be doubted.

It has been alleged, and generally believed by most gentlemen here, that native cattle cannot communicate the disease to native cattle. We in New York know that this can be done, and as this is a matter of particular importance, and one in regard to which no observation has been particularly made at the west, I will, with

your permission, read a carefully prepared statement of certain circumstances which occurred in Orange county, New York, which I will myself verify, for they all occurred under my own immediate observation.

On the 25th day of August, 1868, a lot of forty-four cattle arrived in Goshen, at about six o'clock in the morning, which had been purchased in Buffalo, by Charles H. Church, for John Hodge, of Goshen. Mr. W. Church, the father of Charles, alleges that the whole lot was purchased of a man named Gridley, who lives about ten miles from Painesville, Ohio. Mr. Hodge, the owner of the cattle, says, on the other hand, that sixteen of them were picked up at Buffalo—their place of origin being unknown. He admits, however, that twenty-eight of them were purchased near Painesville, and had been owned by the farmers of whom they were purchased over a year. There was one steer in the lot; all the rest were cows or heifers. It is certain that there were no Texas or Cherokee cattle among them. On their arrival, there was no symptom of disease observed among them. The cow that subsequently died was carefully examined by three different buyers, within two hours after her arrival. They were experienced men, and each of them made offers for her, but the price was not such as Mr. Hodge thought she ought to be sold for. He has been in the cattle trade for over thirty years, and is thoroughly acquainted with the usual signs of a healthy condition in cattle.

It is clear that if Mr. Hodge had suspected that the cow had been diseased, he would have sold her at the price offered; and if the buyers had suspected disease, they would not have made the offers that they did, which were seventy, seventy-two and seventy-five dollars, respectively.

At ten o'clock, A. M., Mr. Hodge discovered, for the first time, that the cow appeared weak in the knees, and staggered slightly when she walked. By eleven o'clock, A. M., these symptoms were aggravated, and Mr. Hodge drove her into a small lot by herself. This lot was bounded on one side by a low stone wall, standing on the edge of a steep hill, the foot of which adjoined the public road. Mr. Hodge being busily engaged in selling the remainder of the cattle, he paid no attention to her until four o'clock, P. M., when word was brought to him that the cow was lying in the road. On going to her, he found that the wall had fallen down, and the marks on the side-hill showed that she had

slidden down it into the road. He infers that she fell down suddenly, throwing down the wall. He then put her into a stone-boat and had her drawn to a small orchard, by a pair of oxen. She lay there until about six o'clock, P. M., when she died. She was a grade Devon, and was within about four weeks of calving, and had been on the cars thirty-seven hours, without food, drink, or rest. She was buried about two feet deep, but swelled so much after death that she could be plainly seen. No symptoms of disease, other than those already mentioned, were discovered previous to her death.

On Saturday, the 29th of August, William Morel, of Montgomery, Orange county, N. Y., purchased two cows out of this lot of Mr. Hodges, reserving the right to return them if he did not like them on trial. The purchase was made late in the afternoon, and he therefore left them that night at the farm of his brother, John Morel, of Hamptonsburgh, who turned them into the pasture with his own cows. *These were the only strange cows that they ever had been in contact with.*

On Tuesday, September 1, William Morel removed the two cows to his own farm. After keeping them some days (the precise number does not exactly appear,) he returned one of them to Mr. Hodge, saying he did not like her as well as he expected to, but not alleging any sickness as the cause of the return. Mr. Hodge then resold her to another person, who also was dissatisfied with her, and returned her; but did not allege ill health as the cause of his dissatisfaction.

The cow that Wm. Morel retained died on Tuesday, the 8th of September. Her milk began to diminish two days before. On the day of her death she appeared weak in the knees, and staggered in her walk. After her death bloody matter was found upon the ground. This is all the information we have been able to obtain respecting the death of the second cow.

The cow which William Morel returned died on the 11th of September. Nothing unusual was observed about her. The first knowledge that Mr. Hodge (who then owned her) had of her being diseased, was when he found her dead in the lot. This was the third cow, of the original importation by Mr. Hodge, that died, and we cannot find that any others have died up to this time, November 1st

On the 12th of September, one of John Morel's cows, which had been in the pasture with the two cows which William Morel brought there on the 29th of August, was taken sick. She had been drooping for some days before, and had fallen off in her milk. On the morning of the 13th her milk was entirely gone. Her head hung down below the line of her back. She was weak and staggered very much when she attempted to walk. She lay down and got up frequently, and was restless and uneasy. Some time before her death she was in great distress. She was very thirsty, and ate hay with an apparent relish; within a short time of her death. She died about two o'clock, P. M., on the 13th.

On the 14th of September, another, and the second of John Morel's cows, was taken sick, which somewhat alarmed him, and he paid more particular attention to the symptoms than he had done before. She had the hoof ail about two weeks before, but had recovered from it. On the night of the 13th she gave a larger mess of milk than she had done since she had the hoof ail. On the morning of the 15th, her coat was rough; all the hairs seemed to stand upright. Her head hung down and her ears were flabby and drooping. Her milk was entirely suppressed, her urine was nearly black, her bowels were loose and the stools were very offensive and almost putrid. She staggered in her gait, lay down and got up often, was very thirsty, and died towards evening, on the 15th of September.

On the morning of the 18th, John Morel found his third cow dead in the lot. She was observed for four days previously to be falling off in her milk, and to be somewhat drooping. On the evening of the 17th he gave her some medicine, and the next morning found her dead, as above stated.

On the 21st an ox died at Hamptonsburgh, which belonged to Mr. Hodge, and which had been employed in hauling away the carcasses of the first and third cows that died of the original importation. He had also got into the orchard in which the first cow died, and remained in it all night. All that could be learned of his symptoms was, that after death his rectum was protruded, and was very red.

Another ox, that had been employed in hauling away dead animals, was taken sick, and remained ill for two days. He then began to recover, and in about ten days he was deemed fit for work by the owner, but has not been used since.

These seven deaths seemed to excite no alarm among the inhabitants. The weather was exceedingly hot, and most of the deaths were popularly attributed to milk fever.

John Morrel had the second cow opened, and he says the lungs were out of order. The ox was supposed to have died in consequence of being choked by an apple from the orchard where he was pastured.

These facts, or rather the rumor of them, reached the commissioners about the first of October, when D. Montfort, of Newburgh, was appointed an assistant commissioner for the county of Orange. He visited the localities which had been the seat of the disease, but found no evidence sufficient to show that it was the Texas fever.

Later rumors began to circulate that it was the Texas fever; whereupon, Mr. Gould, the commissioner residing in the eastern district, accompanied by assistant commissioners Morris and Montfort, went to the localities, and by carefully questioning all the parties, there appeared to be the strongest probability that these cattle had all died of the true Texas fever. As no cattle had died or been sick for four weeks previously, it was confidently believed that the disease had spent its force, and that no more danger was to be apprehended. The parties were, however, strictly enjoined to give the earliest possible notice to Dr. Montfort, should any further appearance of the disease be manifested.

On Saturday, the 24th of October, John M. Morrel, of Hamptonsburgh, residing on what is locally known as the "Purgatory Farm," found two of his heifers dead in the pasture lot. They had been running for some time on Mr. Church's pasture, in which the third cow of the original importation, and the ox that died, had run. On Sunday, the 18th of October, Mr. Morrel brought them to a small pasture, where he observed them closely until Tuesday, the 20th, when he turned them on to a lot on his own farm. From this lot, they had ready access to Mr. Church's lot, and to which they went almost immediately, and remained there. The last time that Mr. Morrel saw them was on Friday, the 23d, when they were feeding on the hill-side apparently well. He found them dead between one and two o'clock on Saturday. Dr. Montfort was immediately notified, and accompanied by Dr. Morris, assistant commissioner for New York, who had great experience in the disease, and who carefully examined these—

they pronounced the post mortem appearance precisely those of the Texas fever.

Dr. Morris carried specimens of the blood, bile and tissues of the diseased animals to New York, where Dr. Stiles gave them a careful microscopic examination, but failed to find the characteristic cryptogam in the blood or bile, or yellow circle in the center of the lobules of the liver. After the examination, the bodies were carefully burned, under the direction of the assistant commissioner.

On the morning of the 26th, Mr. Gould arrived in Goshen, and remained there until noon of the following day. He visited all the localities where disease had manifested itself, and quarantined the cattle that had been exposed to the diseased animals. He also published a set of plain directions to farmers to aid them in preventing the spread of the disease, and to treat it when it appeared, which was published in the county papers.

The next case occurred on the farm of John Morrel, at Hamp-tonsburgh, on Monday, the 26th of October. Mr. Morrel says that at first he would have hardly noticed anything wrong if his fears had not been excited by previous deaths in his herd. As the day wore on the symptoms were aggravated; the back was arched, and ineffectual efforts were made to evacuate the rectum. She was very restless; walking a few steps and then stopping. At night she gave a fair quantity of milk. On Tuesday morning she was in an apparently dying condition, and at half past seven o'clock in the morning she was dead.

At half past three o'clock, Dr. Montfort arrived at the farm and made a post mortem examination, of which he makes the following report—

“Flesh very dark; fat of a reddish-yellow color; lungs perfectly healthy; heart healthy; spleen enlarged to three times its natural size and filled with blood; liver slightly enlarged and fatty; kidneys healthy; fourth stomach at pyloric extremity reddened and inflamed with ulcers; mucous membrane peeling off readily; bladder entirely empty and contracted—feeling almost like a ball; rectum very much inflamed; mucous membrane softened.”

The animal having been confined in a stable, Dr. Montfort ordered it to be thoroughly disinfected with the Henny carbolic oil, and all cattle to be excluded. The remainder of the herd were confined to one pasture.

This completes the history, and I think you will agree with me that it shows most satisfactorily that the genuine Texas fever may be transmitted from one native animal to another. It is true that this is an unfrequent occurrence, but having happened once, it may occur again under special conditions calculated to promote it, and we ought, therefore, to keep that possibility clearly in our minds while determining the draft of the legislative provisions intended to prevent its spread.

I come, now, to this question. What is the real essence of this disease? Why is it that a certain plant causes the destruction of the animal? Now, gentlemen, hitherto I have been on impregnable ground. It is possible, that regarding what I am about to state, there may be differences of opinion.

You are all aware, gentlemen, that the term mycelia, when speaking of cryptogamous plants, has the same meaning as the word roots, when applied to other species of plants. When we speak of mycelia, we speak of roots. In examining these objects under the microscope, we have never yet seen any mycelia; but I have no doubt, and I think none of us can doubt, but that mycelia exists in these, for the reason that all other cryptogamous plants do have mycelia.

Again, in examining blood discs at various times, Dr. Stiles has found they were perforated with minute holes, as though they had been worm-eaten, and that, when thus worm-eaten, they always diminish in bulk and size. As Dr. Morris will show you, when exhibiting the microscopic appearances, these objects appear like minute dust, like the prick of a pin. You will see that, as this microscope magnifies five-hundred times, it follows that these must be the size of the five-hundredth part of the prick of a pin. As I said before, these minute drops, after a little time, enlarge and present an ear-shaped appearance; after which, enlarging still further, two nuclei are discovered. Now, gentlemen, it is perfectly obvious that nothing can gain in bulk by the creation of its own matter, and if a growing body does increase in size, it is perfectly plain, and beyond the shadow of a doubt, that this increase must be gained from some source exterior to itself. My own opinion is (and I only give it as an opinion, though it seems to me that no one can arrive at any other conclusion), that these mycelia penetrate into the blood discs, which are the very life of the animal, suck out its substance, and appropriate it to their own

growth. In other words, that the growth of these plants is at the expense of the blood discs themselves.

There may be an additional cause. We are perfectly familiar with the action of yeast in solutions of sugar; and we know, equally well, that yeast is simply an aggregation in fluid of these minute cryptogamous plants. These yeast plants grow by feeding in the sugar, appropriating the substance of the sugar to themselves; then, when they have obtained all that they need for their own transformation, they excrete the substance known as alcohol.

Now, it may be possible that this plant, after feeding in the blood discs, may not require all the substances contained therein, and may, like the yeast plant, excrete some poisonous matter which may operate as a specific poison of the blood. In addition to the absorption of its nutritive properties, you may take either, or both, of these conjectures as an explanation, and one or the other, or both, account, it seems to me, most satisfactorily, for the fact that the growth of these cryptogams in the blood is the cause of this dreadful phenomenon.

I move my arm, and some minute part of the muscles is destroyed. In order to maintain my health a provision is made, whereby the wasted part is carried off through the circulation, by which the blood is purified, passing through the heart and lungs and is finally carried away. At the same time, in a healthy condition of the body, when a particle of disused matter is carried off by the current of the blood, the arterial blood darts in and a fresh particle replaces that which was destroyed; so it is in the hair, the eye and every other tissue of the body. The integrity of health, therefore, depends on the existence of pure blood in the body, and on the power of that blood to reproduce the wasted tissues of the system. When, therefore, a diseased animal moves, there is no drop of pure blood, whereby the vacancy may be filled; and when the effete and wasted portions are carried off, there is nothing to replace it; consequently the animal dies from waste and inanition. This disease has its foundation in the destruction of the blood, causing that decay in every portion of the body which I have described. It produces that fatty disintegration of the liver, the breaking down of the spleen and all the phenomena which I have described.

The next question that may be of interest is this—how is this disease communicated? how is it these spores pass from the sick

animal to the healthy animal and there take root and grow? There are various ways. I will not repeat what I have said to you regarding these spores, for I know you all understand what I have been saying. These spores are thrown out in the dung, urine, or any other excretion, and by and by we find them in every part of the body. Not merely the blood, but the bile, the urine, and all the tissues of the body, are found to be overflowing with them, each little plant striving to gain some nutriment from some important organ of the body. Again, these spores find a genial home within the sheaths of a great variety of grasses. They take root there and completely overrun them, so that a large area may become absolutely poisoned by the growth of these minute spores. When the cattle crop this grass, it is very easy to see how, entering into the stomach, these minute objects may be introduced into the circulating current of the blood, and thus become infused through the whole body.

We have tried this thing artificially. A great number of subjects have been fed upon small pieces of the diseased liver, spleen, etc. Some animals have been affected one way and some another. We have not gone through these experiments as thoroughly as we desired or intended to do. Thus far, we have only been able to reproduce the Spanish cattle fever in rabbits, but that we can do, with absolute certainty. After feeding for a few days on these spores, the rabbit has all the symptoms of the real cattle fever, and on dissection, the bile, blood and urine are found perfectly loaded with these spores. It seems to me that we have thus demonstrated the real foundation of this disease, but as this subject will be much more fully entered into by Dr. Morris, I will not go into details.

The question is sometimes asked why it is that Texas cattle will sometimes give the disease, and at other times will not. All of you, undoubtedly, have come prepared to detail to us most marvellous instances of this kind, for I have heard of such, all through the country, and from all classes interested in the subject. Take, for instance, the case of Mrs. Duke, of Kentucky. One hundred Texas steers were brought to her for pasture, and were pastured for three or four weeks, after which they were sold to a neighbor. She then turned in four hundred head of her own cattle, every one of which, after grazing upon these grounds, died. But Mr. Duncan, who purchased the cattle, put them on his own fields, with

his own animals, and not a single one was afflicted with the disease.

The explanation of this is very satisfactory to me. I can very well understand how the fresh, green pastures, and the cool, flowing waters of Kentucky, washed out all these spores from the animals, and, having thus become pumped, they were incapable afterwards of transmitting the disease.

You will recollect that in describing these cryptogamia, I have spoken of them as in various stages and conditions of development, but the spores must be in a given condition before they will develop into the large plants I have described. So, with Texas cattle; they may be full of these spores, which, however, may not be in a condition to develop themselves, and then their excrement has no hurtful quality, and our native cattle may pass over after the Texas cattle without any sort of danger. It is only Texas cattle who have the spores in their own bodies in such a stage that they may be developed in any other animals that are capable of communicating the disease.

Why is it so rarely the case that native cattle communicate the disorder? It is because the native cattle do not, in ordinary cases, develop these spores at the point where they are susceptible of propagation. That is the plain and obvious reason why these discrepancies exist, and why it is that sometimes Texas cattle will surely communicate the disease wherever they go, while at other times [there is no danger whatever. I pass over these matters with as much brevity as I can, and I shall be very happy at some future time to explain the matter which gentlemen may desire, and in regard to which I may have omitted some point.

I now come to the most important inquiry of all, as to whether there is no mode of arresting contagion from Texas cattle; and, I am more than happy, gentlemen, that it is in my power to state, with a great amount of confidence, that we have such an agent. I have here before me specimens of carbolic acid, in various preparations, some containing forty per cent., ninety per cent., and here, in the third bottle, the heavy oil containing about 15 per cent. It is to this remedy that I wish to call the attention especially of the farmers of the west, for I do believe that they have in it a real and true friend.

It is wonderful what the influence of this carbolic acid is; and I don't know that I can better illustrate its wonderful power than

to tell you the effect it produced at the bone-boiling dock in the city of New York. The most of you must know the intolerable stench generally issuing from such a place. I have seen there twenty horses brought in at once, in various stages of putrefaction, reeking with unbearable odors. I have sprinkled lightly over them this acid, and the whole of this disgusting effluvia was gone at once. Put those putrefied and corrupt bodies—horses, pigs and hogs—into the boiling-tank, and there is not the least odor therefrom. The fat is all tried out, and there is no more scent of that corruption than there is scent of corruption in this assembly to-day. Take one of those stinking livers out of the furnace in which it has been tried out; break it open, and hold it directly under your nose, and you will pronounce it perfectly sweet.

Gentlemen may smile, but it is a positive fact; and if you will only try it, you will find my statement verified.

If I am correct, gentlemen, as far as I have gone, and if I have succeeded in satisfying you with regard to the true nature of the disease, it follows that if we can destroy these spores, which I have shown to be the true cause of the disease, as I believe, we blot out the cattle fever. And I here state, gentlemen, that carbolic acid will destroy these spores. If you can only moisten them with this acid daily, you will render them utterly incapable of propagating themselves. The difficulty, of course, is, that you cannot thus go over your fields and pastures.

The expense of the dead oil is but a trifle, for it is sold in the city of New York at eight cents a gallon.

Gentlemen, I have some notes here with regard to the value of this antiseptic, and as I believe they will be of interest to you, I will, with your permission, read them:

The advantages of carbolic acid over other allied substances are, that it destroys the causes of the disease, while the others are mainly concerned with its accessories. A small quantity of it answers the purpose. It is cheap. It is volatile, and therefore attacks the minute spores that are floating in the atmosphere, and are the chief disease-producing agents.

I have given a conjectural theory of the disease when speaking of its essence, but it is by no means certain that it is the true one. Yeast is the ferment with which we are most perfectly acquainted. This plant, as I have said, feeds upon and assimilates the sugar contained in the fluid, where it grows, and throws out alcohol as

an excrement. There may possibly be a similar excrement from this plant, which is believed to be a *Tilletia*, and the morbid virus may be this excrement.

However the true source of the morbid virus may be subsequently settled, it is certain that carbolic acid destroys the vitality of the plant, and thus arrests the propagation of the disease. It is not yet fully settled that it has the power to arrest the ravages of the disease when it has once obtained lodgment in the body of the animal. In other words, it is not known to have the power of restoring or replacing the broken-down blood corpuscles, or of rendering the specific poison (if there be any) innocuous.

The following experiments by Mr. Crooks throw much light upon the action of carbolic acid on vegetable and animal tissues:

1. Some meat was hung up in air till the odor of putrefaction was strong. It was then divided into two pieces. One was soaked for half an hour in chloride of lime solution, and was then washed and hung up again; the offensive smell had entirely gone. The other piece of meat was soaked in a solution of carbolic acid, containing one per cent. of the acid; it was then dried and hung up. The surface of the meat was whitened; its offensive odor was not removed, though it was masked by the carbolic acid. In two days' time the bad odor had quite gone, and was replaced by a pure but faint smell of carbolic acid. In a few weeks' time the two pieces were examined again. The one which had been deodorized by chloride of lime now smelt as offensively as it did at first; whilst the piece treated with carbolic acid had simply dried up, and had no offensive odor whatever. It was then hung up for another month, and examined; no change had taken place.

2. A piece of fresh meat was soaked in one per cent. aqueous solution of carbolic acid, for one hour. It was then wrapped in paper, and hung up in a sitting room in which there was a fire almost daily. At the end of ten weeks it was examined. It had dried up to about one-fourth of its original size, but looked and smelt perfectly good and fresh—a very faint odor of carbolic acid being all that was perceptible. It was soaked for twenty-four hours in water, and then stewed, with appropriate condiments, and eaten. It was perfectly sweet, and scarcely distinguishable from fresh meat, except by possessing a very faint flavor of carbolic acid, not strong enough to be unpleasant.

3. Cheese-mites were immersed in water, where they lived several hours. A few drops of a solution of carbolic acid, containing one per cent., added to the liquid, killed them instantly.

4. An aqueous solution of carbolic acid was added to water in which a small fish was swimming. It proved fatal in a few minutes.

5. A very minute quantity of a weak solution of carbolic acid was added, under the microscope, to water containing various infusoria, such as bacteria vibrios, spirilla, amoebæa, monads, englenæa, paramecia, rotifera and vortecellæa. The acid proved instantly fatal, arresting the movements of the animalcules at once.

These animalcules are the almost invariable accompaniments of putrefactive fermentation. The above experiment has been tried with putrid blood, sour paste and decayed cheese, and in every instance the destruction of vitality and the arrest of putrefaction have been simultaneous.

6. Caterpillars, beetles, crickets, fleas, moths and gnats were covered with a glass, the inside of which was smeared with carbolic acid. The vapor proved quickly fatal. Dr. Elisha Harris confirms the deadly effect of carbolic acid on the common house fly. Dr. Lemaire and other observers testify to the effect of it upon ants and their eggs, lice, bugs, ticks, acari, mosquitoes, aphides, butterflies, earwigs, wood-lice, cock-chaffers, centipedes, and other insects of this size.

These examples show with sufficient clearness that carbolic acid has a very remarkably destructive effect upon the minuter forms of vegetable and animal life, and that it may be fully depended on to destroy all the fungi which are the causes of putrefaction.

There is a strong analogy between the European disease known as the rinderpest and the Texas cattle fever: both of them seem to be caused or at least associated with a growth of minute fungi in the blood and in the bile. Whatever influence therefore is proved to be exercised by carbolic acid over one disease, may be fairly inferred respecting the other. It is therefore instructive to know that in a shed very greatly infected with the rinderpest, the air was drawn through glass tubes containing trifles of cotton wool, in the expectation that some of the virus cells, supposed to be floating about in the atmosphere, would be arrested by the wool. The suction was continued for ten minutes. One piece of the infected

was then exposed for half an hour to the vapor of carbolic acid. Two apparently healthy calves were selected, and an incision being made beneath the skin, these pieces of wool were respectively inserted in each. The animal thus inoculated with the infected wool, which had been exposed to carbolic acid, remained perfectly well, but the other animal took the disease, and died in a few days. It is possible that the calf that died might have contracted the disease before the inoculation was made. We admit that the proof of the protective power of this acid, in this particular case, is not as strong as it might be, but as it is the only case of inoculation that has come to our knowledge, we give it for what it is worth.

The influence of carbolic acid in protecting cattle against the ravages of rinderpest, were very decided. No cattle, thoroughly and persistently protected by it, ever had the disease. As an example of a great number of cases, we give the following statement of Mr. Crooks, respecting the farm of Mr. Spence, at Smedley, near Manchester :

“ I arrived here in December last, and instructed the attendants in the management of the disinfectant plan with carbolic acid and sulphur. It has been regularly carried out ever since. In January last the disease first appeared in the immediate neighborhood, and carried off about a dozen cattle from a farm, the sheds of which were not more than 500 yards from Mr. Spence’s cows. A short time after, thirty beasts, 750 yards off on another side, were attacked, and the whole were swept off in rapid succession. A month ago the disease appeared amongst twenty-two in another direction, not more than fifty yards off, and the whole of these also died. Through all these cases occurring around him, the cattle of Mr. Spence, protected by carbolic acid, escaped the contagion.”

A still more remarkable example of the protective power of carbolic acid is given by the history of its action on the cattle of Mr. Lowe, Smethweck Hall, Brereton, Cheshire, England:

“ This farm is in the centre of one of the most affected localities in England. The stock consists of seventy-three animals ; forty-five milch cows, kept in houses which have been regularly disinfected since December last ; and fifteen two year old heifers, and thirteen yearling calves, kept in fields and open sheds. To these latter no disinfectant whatever has been used, owing to the impossibility of applying it satisfactorily to animals in the open air.

The disease prevailed very severely all round, but no case occurred at Mr. Lowe's farm until February, when one of the forty-five milch cows showed signs of illness. Immediate investigation was made, and it was found that one of the cow-men on the previous day had attended a post mortem examination of some diseased beasts, and having come directly to Mr. Lowe's house, afterwards had milked some of the cows. The man was, of course, discharged instantly. The succeeding day, February 20, the first cow that the man had milked, on the day of the post mortem, refused her food, and all the symptoms of the plague rapidly appeared. Two others in the same house were afterwards attacked, one of which recovered almost immediately and one was killed as a matter of precaution. A fourth case then occurred in another shed. On inquiry, I found that the first, third and fourth cows were those which had been milked by the discharged man. The second case, occurring in the same shed with the first and third, was evidently either developed from them, or was a case of infection brought from the calves mentioned below. These four cases are all that have occurred amongst the forty-five milch cows in the disinfected sheds. Up to the present date (April 25, 1866,) the rest are perfectly well. Their health indeed seems to be improved by the carbolic acid. The cows are very fond of it, and lick it from the wood-work or walls whenever they have an opportunity.

Previous to his discharge, and on the morning of that day, the same man was employed in preparing food for and feeding the unprotected fifteen heifers and thirteen calves. A few days after the disease developed itself amongst them, and in a fortnight they were all dead.

A crucial experiment has therefore been tried at this farm on the grandest scale. It was indeed supplied by accident, but it is none the less satisfactory and decisive. Although it far surpasses in magnitude any trial which an experimentalist dare institute, it fulfills every condition which could be demanded by the most rigid investigation. A farm is chosen in the very hot-bed of cattle plague. The cattle on it are divided into two lots, forty-five being placed in disinfected houses, and twenty-eight in undisinfected open sheds. The disease is brought into each lot on the same day, by direct inoculation of the virus. Of the disinfected animals only those actually inoculated fall a prey, whilst of those which are not protected by disinfection the whole are rapidly

swept off. It is scarcely possible to say anything which will add to the satisfactory nature of these results; but I may mention that of the ten farms immediately surrounding Mr. Lowe's, seven have lost the whole of their stock (amounting to 215), whilst on the remaining three the plague is gradually spreading through the herds.

Accident has carried this grand experiment a step further, with most striking results. A few weeks ago the remainder of Mr. Lowe's forty-five disinfected animals were turned out to grass, and at the same time were removed from the protecting influence of carbolic acid. Within a few days the plague attacked and killed the whole of them. The complete proof of the value of carbolic disinfection, which has been afforded at this farm, is cheaply purchased at the loss of all Mr. Lowe's stock."

In this connection I will state that the earliest herds affected, arriving in New York, were those sent forward by Mr. Alexander from Homer, in this State. Many of the animals were killed, and the few that Mr. Alexander had sold, he purchased back the moment he was acquainted with their sickness. Six of these animals were left in Jersey for an experiment. Though very much diseased, the experiment was tried of feeding them this carbolic acid, together with glycerine and soda, diffused through water so that it tasted very perceptibly. Careful chemical experiments were made each day after their being fed on carbolic acid. After the fifth day it was found that the fibrine of the blood was being renewed, and with each successive day that the treatment was continued the fibrine increased until nearly the normal amount was restored, the animals becoming perfectly well. I do not say that this is a cure, but I do think that instance illustrates very clearly the power of carbolic acid in arresting the disease. At all events, if it is not considered, as I do not consider it conclusive in the matter, it is well worth the while of every western farmer to supply himself with a barrel of this acid, which does not cost a great deal, and try the experiment himself. I find that I am getting exceedingly tedious, but I wish to say this in regard to the influence of this acid upon the rinderpest—that where cattle were surrounded on every hand by that disease, the hanging up of rags which had been soaked in this acid, through the stables where they were, entirely protected them. I do not think and I do not believe it possible that cattle sick with the Texas fever, could under any circum-

stances, communicate it to others, where the odor of carbolic acid is constantly diffused. At all events, we may state, as matter of fact and not as an opinion, that no animal has ever died where it has been faithfully used. It is also a very efficient remedy in many diseases and a specific for some. It is the best remedy for foot-rot in sheep that has ever been discovered. This, of itself, ought to be a sufficient inducement to you all to keep it constantly on hand. It is also the best remedy for ticks and scabs ever known, and especially with regard to these ticks I will say, since there has been so much talk of them in connection with the Texas fever, that they are killed as by a shock of electricity simply by rubbing lightly over them this same acid. It is one of the best of remedies for pleuro-pneumonia. It is also almost a specific for glanders in horses—the worst cases have been cured by it. For foul ulcers it is one of the most reliable of all remedies. If you desire to destroy unpleasant odors around your slaughter houses or privies, a very small amount of this carbolic acid will do it effectually, and that, too, for a month. Dr. Snow, one of the secretaries of this convention, who is the health officer of the city of Providence, has used it to a great extent in the disinfecting of drains, and he will add his testimony to mine.

In addition to this, it is a sovereign remedy for the whooping-cough, entirely removing those terrible paroxysms which are so much dreaded.

Now, in regard to the periods of incubation. I have obtained the following data:

Texas cattle were received on the Broadlands estate on the 31st of May, and no disease occurred among the native cattle until July 26th, a period of fifty-six days.

Col. Sullivant's cattle *via* Red river were received June 2d, and the disease did not make its appearance until Aug. 2—sixty days.

Mr. Gregory put Texas steers into a pasture with fourteen native steers on the 20th of June. The first of fourteen died on the 10th of August—fifty-one days.

Mr. Gregory put forty head of native cattle with the Texas cattle, on the 29th of July. On the 15th of August the first of the forty died—seventeen days.

John Morrel's first cow was exposed on the 29th of August; died on the 13th of September—fifteen days.

J. Morrel's second cow, exposed on the 29th of August, died on the 15th of September—seventeen days.

J. Morrel's third cow, exposed on the 29th of August, died September 18th—twenty days.

We have up to the present time no evidence that the disease manifests itself in less than seventeen days or more than sixty days after being exposed to the infection. Hence cattle that have been exposed to the disease should remain in quarantine for a period of at least sixty days.

Since considerable inquiry has been made in relation to them, and I have been requested to present them to the convention, I will now read our instructions to farmers; they are as follows:

1st. When the disease makes its appearance in any neighborhood, all the owners of neat cattle should make a point of examining each animal every morning. The chief points to which their attention should be directed, are the following:

The head; whether it hangs down, whether the eyes are dull and staring, whether the ears are drooping, whether the horns are hot or cold.

The coat; whether it is rough or smooth.

The urine; whether it is a dark red or black.

The hind legs; whether the gait is staggering and whether the knees seem weak.

The dung; whether it is natural or otherwise, and especially whether the animal arches its back and makes ineffectual efforts to dung.

See if there is any drooling of frothy matter from the lips.

If you have a fever thermometer, insert it into the rectum (bung), let it remain until the mercury ceases to rise, then note the temperature. If it is 102° Fahrenheit, and any of the above mentioned symptoms are present, you have good reason to suspect the presence of the Texan cattle fever, and the probability is increased by every additional degree of temperature.

It is very important that the dates be carefully observed of all the symptoms connected with the disease, and experience has shown that memory is very untrustworthy; by all means, therefore, let all the above facts be clearly *written down* as soon as possible after the observation is made.

Shut all suspected cattle in a lot or building by themselves, so that no other cattle can have access to them or to their droppings.

Send word as soon as possible to the nearest assistant commissioner of the suspected; if a telegraph is accessible send him word through its agency.

2d. Means of prevention.

When the disease is present in any neighborhood, every owner of cattle should be provided with a barrel of heavy coal oil which contains from eight to twelve per cent. of carbolic acid, and a quart of liquid carbolic acid, which contains ninety per cent. of the acid; the latter is mixable with water, the former is not.

If the suspected cattle are kept in a building, let the floor be sprinkled with the heavy oil, and especially let it be sprinkled on their droppings as fast as they are made. The wood work of their stalls, and behind their stalls, be covered with this substance, spread on by a common whitewash brush. The heavy oil may be sprinkled on the floor through a common watering pot. These articles are furnished by the Warren chemical manufacturing company, No. 4, Cedar street, New York.

If the suspected cattle be herded in a yard or small pasture, let the droppings be sprinkled daily with heavy coal oil.

Remember that strict isolation is the chief means of safety. Let no strange animal come upon the place. Let no suspected animal go on any public road nor have access to running water to which other animals go. The dung and urine of sick animals are the chief means of propagating the contagion, and it is known that it is often diffused by the dung which adheres to the shoes of attendants. A box containing slacked lime or ground plaster well saturated with the heavy oil, should be kept near the diseased animals, and all persons, when leaving the vicinity of such animals should carefully rub their shoes in the powder in the box.

3d. *Curative means.*—There is no certain cure for the disease yet discovered. Some animals get well without any medicine; others seem to have benefited by feeding in a salt marsh and on green corn.

In case you have the liquid carbolic of ninety-five per cent., which will mix with water, drop enough of it into a pail of water to give a slight taste of it to the water, and let them drink of it twice a day.

If you have nothing but the heavy oil, mix three ounces of soda with it, which will make it mixable with water, and put the mixture into a quart of water; pour enough of this mixture into a pail of water, and let them have two pails full a day.

Let the sick animals drink freely of water, as they are generally very thirsty; and place salt where they can lick it whenever they are disposed to do so.

With regard to food, follow the advice of the medical practitioner.

If carbolic acid cannot be obtained, dissolve two pounds of sulphate of iron (green copperas) in a gallon of water, and use the solution as directed for the heavy oil.

Bury them in a grave at least seven feet deep, and cover the carcass with a barrel full of quick lime; ram two feet of earth well down over the lime, and then fill in the remainder of the earth.

In regard to the burial of dead animals, you will permit me to say that one of the prolific causes of the spread of this disease has been the careless burial of animals that have died of it. By all means, if you value your herds, bury the dead animals carefully, and if you can throw a barrel of lime over them, all the better.

Now, gentlemen, the question is: What shall be done with the Texas cattle? Shall we, by law, utterly prevent their coming here; inflicting heavy pains and penalties upon those who import them? Is there any period of the year when they are not harmful, during which they may be permitted to come in, while we exclude them at other seasons?

With regard to all this, I am unable to say anything, because that is a matter in relation to which we have come here to be enlightened by you of the west. But one thing you must bear in mind, that is, this thing must not be tampered with. If it shall be proved that, by the introduction of Texas cattle, these broad and beautiful and fertile prairies are to be filled with these spores, that abound in the grasses of Texas, recollect that you are to give up cattle altogether; that you cannot raise them at all. You must settle that question definitively and honestly, looking it squarely in the face. If there is no time when Texas cattle can safely come in, then they must be excluded, painful as it is for me to say so, for cheap meat is what we want in New York, and,

from what I hear, our only hope of obtaining it is by importation of Texas cattle. But if their introduction is going to kill off all your herds so that you cannot supply us with any meat at all because of your prairies being so thoroughly poisoned, then it is for our interest to exclude them altogether.

You must consider the power of this parasite to spread, and also the question of its acclimatization in the grasses of this western country, and the possibility that your prairies will become so infected with this poison, as to be utterly worthless for cattle purposes.

In conclusion, gentlemen, I have some hope, and in fact a very strong one, that the ravages of the Texas fever may be somewhat circumscribed through the destruction of these spores by means of carbolic acid, and I am perfectly confident that they will be so circumscribed if you will but once begin the use of it. And then, again, it does not seem to me to be altogether hopeless that these spores may be destroyed, by means of carbolic acid administered internally, before they can be discharged upon your prairies.

Gentlemen, I apologize to you for trespassing so long upon your patience, and will close with this motion, that a committee be appointed whose duty it shall be to draft a series of propositions that may be enacted into laws by the legislatures of the several states interested in this matter.

DR. CLENDENNIN, of Ohio—Before the motion is put, Mr. President, I should like to suggest that that committee be composed of one member from each state and province represented in this convention.

The amendment was accepted, and the motion prevailed.

THE PRESIDENT—The chair will consider it a favor if the delegation from each State will suggest one of its members to act upon this committee. I will appoint the gentleman from New York (Mr. Gould) chairman.

MR CHADBOURNE, of Wisconsin—I move that when we adjourn, it be till half-past seven o'clock this evening.

The motion prevailed.

THE PRESIDENT—Before we adjourn, gentlemen, I would like to submit a communication received by the chair:

SPRINGFIELD, *December 1, 1868.*

To the President of the Stock Convention :

SIR—I have the honor to transmit herewith a copy of a resolution adopted by the Board of State House Commissioners, in compliance with their instructions.

Very respectfully, your obedient servant,

J. C. WEBBER.

Resolved, That the Stock Convention, now in session in this city, representing many of the states of the Union and Canada, be and hereby is respectfully invited to visit the grounds and examine the foundation walls of the new state house, now in process of erection in this city, stating a time most convenient to themselves.

The communication was received, the invitation accepted, Tuesday 12 M. fixed as the time, and the secretary directed to reply to the invitation accordingly.

Whereupon the convention adjourned, to meet again at 7:30 P. M.

EVENING SESSION.

THE PRESIDENT—Will the various delegations, as the roll is called, name the one of their number who shall serve on the committee for the purpose of drafting the law to be submitted to the several legislatures of the states and to the parliament of Canada.

The roll was called, with the following result: Ontario, Hon. D. Christie; Ohio, Dr. Wm. Clendennin; Maryland, Dr. Richard Mackall; New York, J. Stanton Gould; Rhode Island, Dr. E. M. Snow; Wisconsin, B. R. Hinkley; Michigan, Dr. M. Miles; Massachusetts, Dr. Thayer; Missouri, Dr. L. D. Morse; Indiana, James Poole; Illinois, Dr. Wm. Kile.

The committee was ordered to report in the shortest time consistent with the magnitude of the subject to be considered.

MR. CHRISTIE—Mr. President, as the subject matter before the convention was considered in but one aspect by the gentleman from New York (Mr. Gould), I would now suggest that the medical aspect be now considered by Dr. Morris, of New York; for I think that the convention generally are very anxious to hear him, and to see the illustrations which will accompany his remarks.

DR. MORRIS, of New York—I am not exactly prepared now, Mr. President, to go on. I would ask to be excused until to-morrow.

THE PRESIDENT—We shall be very glad to hear from the gentleman at his convenience.

PROF. CHADBOURNE, of Wisconsin—Mr. President, the paper presented to this convention by the gentleman from New York (Mr. Gould) was, in my judgment, a very important paper—covering a great deal of ground. And as it, in itself, presented to us points that can be considered without any special reference to the medical views of the subject, and as the gentleman who presented that paper said that he should be glad to answer any questions, there are two or three things that I should like to ask him about at this time. The gentleman, as I understood, seemed to think it possible that the grasses upon our prairies might become so infected with these spores that it might be almost impossible to raise cattle here.

Now, that sir, is a very startling theory, and I wish to know if he, or any other gentleman, is in possession of facts that tend to substantiate any such proposition or theory. I have yet to learn that any cattle have been infected by this disease by feeding upon any pastures over which a winter has passed between the time of Texas cattle passing over them, and native cattle feeding upon them.

Now I wish to ask this question: Suppose that Texas cattle have gone over a pasture and left there the seeds of a disease. After the winter has passed, is there any sort of danger that any other cattle coming into that pasture will be troubled with that disease?

On the other hand, has it not been proved by observation that a winter kills out, so far as the pastures are concerned, all seeds of the disease? If this be true, my own mind would be very much relieved, and I doubt not, of very many other persons who were startled by a theory which is certainly a very plausible one.

MR. GOULD, of New York—Would you like to have me answer that immediately?

MR. CHADBOURNE—If you please.

MR. GOULD—The interrogatory is a very proper one, Mr. President. I had in my mind what I suppose was an undoubted fact, but which has been to-day denied; and as I do not wish to give

any unauthentic fact to the convention, it may perhaps be proper for me to relate one of the circumstances upon which my statement was based.

Mr. Harvey Sandusky, states that a gentleman near Mattoon, Illinois, had, last fall, a number of Texas cattle pastured upon his land, and that after these cattle had been taken away, he drove in some of his native cattle, a very large portion of which were destroyed. As a burnt child dreads the fire, he was afraid to risk his cattle there in the spring. He, therefore, allowed the grass to grow up, and it did grow very luxuriantly. One of his neighbors who was short of pasture, desired to turn his cattle into that lot. The gentleman told him that he was afraid to turn his own cattle in; but the neighbor having no fears of that kind whatever—believing that a winter's frost was quite sufficient to destroy the virus which had been left there by the Texas cattle—did turn them into this pasture. The consequence was that twenty out of forty cattle which were turned in, took the Texas cattle fever and died this summer. That is the story as it was told to me.

DR. KILE, of Illinois—Mr. President: I suppose that I know something about this case referred to by the gentleman of New York. The circumstances occurred at Mr. Diller Dole's, five miles north-west of Mattoon, and were these: A year since Mr. Dole, who is a large land owner, rented a pasture to a gentleman who had a number of Texas cattle. These cattle remained there a month or two. Some gentleman purchased, say one hundred cows south of that point, and rented this pasture for them. I would say, by the way, that none of the Texas cattle had died. Mr. Dole rented it, and in August or September the cattle were turned in, and thirty-five out of seventy head died.

MR. CHRISTIE, of Canada—Mr. President: In regard to Mr. Harvey Sandusky, I would say this, that I took occasion, with Mr. Stone, to come to Springfield, by way of Mr. Sandusky's, with him. He was asked in the presence of other parties in regard to this affair, and repeated the same story exactly as given by the gentleman from New York (Mr. Gould), and the parties present corroborated the statement. This statement was, that the cattle were brought to Mattoon a year ago this fall; were fed on this lot during the winter, and were sold in the spring. After they

had been sold, this neighbor, seeing the grass come up very luxuriantly, was anxious to avail himself of so good feed.

The proprietor of the lands, whose name I do not know, stated that he thought it was unsafe to turn cattle in there, and he didn't use it himself on that account. However, the other person treated the matter lightly; put his cows in there, and had lost twenty out of forty. That was the statement to Mr. Stone and myself; and moreover, I find the following statement in the "Report of Commissioners on the Texas Cattle Disease, to the Pork Packer's Association of Chicago, October, 1868," said to have been made to Captain Brown, one of the commissioners of the Illinois State Agricultural Society, by V. T. Chilton, of Smith City, Mo., on the 4th October, 1868: "I have never heard of but one herd that was wintered here that was diseased the next summer, and they may have taken it from other droves that were passing through the country." So that there is one case in Missouri where this thing has happened. In the other the cattle were brought into the pasture in the fall; were fed during the winter, and were sold in the spring; the cows following them the next summer.

MR. CHADBOURNE—That is not the point, Mr. President. Is there one single case known where cattle have been removed from a pasture, there being no cattle in that pasture during the winter, and where animals put in that same pasture during the following season have been infected?

DR. MORSE, of Missouri—It seems to me, Mr. President, it makes little difference whether the disease remains over winter in or about the cattle.

DR. CLENDENNIN, of Ohio—It seems to me it makes a vast difference, Mr. President; for we can kill the cattle, but if the disease is in the grass, and continues there from year to year, we shall want a vast amount of carbolic acid to kill it out in these broad prairies of ours.

DR. KILE, of Illinois—I have lived, Mr. President, in the county adjoining Coles county, and, having been acquainted with the gentleman referred to; I can say he is as truthful and responsible a man as we have; but I know he has been very much excited regarding this disease. I heard this same report, and as Mr. Dole was referred to, I made it my business to inquire of him. He told me distinctly that the cattle were put in in the spring, and taken out some time in the mid-summer; that the

pasture was afterward rented to this man, who was buying cows for the Chicago market, and who put them into that pasture—there being no winter intervening. I will further state that I made these inquiries for the purpose of being able to state to this convention, and being able to state to them, the exact facts. Mr. Dole further remarked that this scourge had been little felt there; that they had not allowed any Texas cattle to be unloaded at that point, and consequently had escaped the disease. I know, however, that Mr. O'Hare, the ex-sheriff of Coles county, brought there, summered and fed, and took to market, over one hundred head, without any disease making its appearance. Mr. Van Daren, a few years ago, brought in three hundred head, which were grazed, fed, and sold to farmers, without our ever hearing of any disease.

So far as I know, the disease has never appeared in Coles county, except in this isolated case.

Mr. POOLE, of Indiana—I would ask the gentleman, Mr. President, if, in driving these cattle to pasture, they might not have been driven along the roads or trails or feeding grounds where Texas cattle had been before them, and thus been exposed in other places besides this pasture.

Dr. KILE—In reply to the gentleman, I would say, Mr. President, that most if not all of the cattle brought there came from Cairo direct. It is a section of the state where cattle are not driven from the south to the north. Mr. Dole told me that these cattle were bought in Marion county, which is almost due south from Coles.

Mr. POOLE, of Indiana—Mr. President, it does not appear to me that a statement of this kind would be sufficient to establish anything positively; but I have a case in point where I know the facts myself. Mr. Earl, one of the commissioners from Indiana, is a very large dealer in cattle. He and his partner had a number of cattle brought direct from New Orleans by the river. They were re-shipped at Cairo, and brought to our town on the Wabash river, arriving in very bad condition. Having been brought up in steamboats, they were shipped to Attica, but were so crowded into the cars that they were trampled on, and some, to my personal knowledge, had to be pulled out of the cars, just alive, and so badly used up that they could not stand. Several died then,

while others were about in that condition for some time, and, when put in a stable and attempted to be cared for, nearly all died.

These cattle were pastured up and down the river a distance of ten miles, and were herded until spring in different pastures, among which was one of my own.

THE PRESIDENT—What time did these cattle arrive, sir?

MR. POOLE—Some time about a year this coming January.

As I was about to remark, some of those cattle died in my field, and their bones lay there yet; and after they had cropped up that field, they were taken to other pastures up and down the river, nearly all of which they used up. To my knowledge, in not one of those fields—not a single one—has there ever been a case of Texas fever. In my own fields, I put in sixty head of fine fat cattle, when the disease was raging worst about our town—the result of unloading cattle there in July. Those sixty head of cattle were only half a mile distant from where the cattle were dying in town; not a single one was sick or died, and I don't know of a single animal that died, up and down that river, in case of cattle situated as mine were. But, regarding the lot that was unloaded and passed through our town about the 2d of July, two-thirds of the stock in our town died as the result, and so for all along this road, a distance of fifteen miles.

I do know that as far as those cattle of Mr. Fowler's were concerned, not a single case of Texas fever has occurred there. This I know to be a fact.

DR. CLENDENNIN, of Ohio—Mr. President, as there does not seem to be anything particularly before the convention, I will give my experience in reference to the use of carbolic acid.

On the 3d of June, the last herd of Texas cattle were brought to Cincinnati over the Ohio and Cincinnati road, and were put into stock pens. They remained there over night only, and, on being inspected by our meat inspectors at that place, they were found to be very poor, and covered with ticks. They were ordered to be taken out of the pen and out of the city, as they were unfit for food, simply because they were so poor. They were taken to Jones' Wood pasture, eight miles from the city, where they were kept two days, and then brought back to the city. In the mean time there was a drenching rain, and the cattle were pretty well washed. They were put into pens at the Brighton stock yards, where they remained perhaps twenty-four hours, when they were

removed for the second time to Jones' Wood pasture, where they remained some three weeks, and were fattened up.

On one occasion some of these animals were stampeded when going to water, and broke into the grounds and gardens of the village through which they passed. The animals with which they came in contact, or that were kept on the grounds over which they passed, took the disease and died. These facts I know, for I followed out every single case myself.

These animals were finally spirited away, and killed, I presume, for the Cincinnati market; as they were outside the city limits, our inspectors claimed that they had no control over them.

Within ten days after the herd was removed from Jones' Wood, 29 cows were put into the same pasture, where they remained, I think, about a month, when the owner observed that the animals were ailing and the symptoms described by the gentleman from New York (Mr. Gould) were precisely those presented by these animals; that is to say, the first manifestations were drooping of the head and ears, and that marked stare, which he so well described. In the early stages of the disease the animal sought the water, lying down in it, and plunging in the nose and face up to the eyes, holding the head in that position as long as was possible without taking breath. This was only during the early stages of the disease. During this time, the temperature of the body was increased, as proved by actual observations made by the thermometer. They would then leave the water, and within four days from the time of the attack every single one of them died. I examined 24 of those 29 cows—every one of which died within ten days. I did not find any disease of the rectum, as Mr. Gould has described; that I found perfectly healthy. If there was any change, it was perhaps a little paler than natural. I found one symptom to which the gentlemen did not refer—(interlobular emphysema)—infiltration of air between the lobes of the lungs: that existed in every case, and in some cases was very marked.

There were two cows, that were particular favorites of one gentleman, who desired to save them. They were but slightly affected—and his own opinion was that they were not at all. He took them from the herd and put them in a lot near his house, in which were two pet cows, which had been kept entirely separate and apart from the Texas cattle, nor had they been brought in contact with his own diseased cattle until those two cows, on manifesting the

first symptoms of the disease, were put into the lot with them. These two cows were put on the carbolic acid treatment, suggested by the commissioner from New York, (Mr. Gould) through the instance of the same gentleman who first proposed this treatment in this country. By the way, this remedy was used very extensively, as you are aware, in Great Britain, and in the north of Europe at the time of the prevalence of the cattle disease there. I refer to Dr. Haines, with whom I was in communication at that time. Carbolic acid was used externally, diluted, and internally, in combination with soda and glycerine. The life of those two cows was, perhaps, prolonged by this treatment, but they died within a week, although the fluids and food which they took contained carbolic acid in some form, diluted.

The two pet cows were also put upon carbolic² acid water as a beverage; their hides were sponged over twice a day with a solution of it, and yet, sir, they died. On examining them I found the symptoms almost precisely as the gentleman has described here to-day. Now, there is one case of the use of carbolic acid in which the animal lived, perhaps, fourteen days or two weeks only, though taking carbolic acid from the first manifestation of the symptoms. I do not mention these cases to prevent gentlemen from using this remedy, for I believe it is one of the best remedies we have for many diseases, but I wish merely to direct the attention of gentlemen to the fact that it is not, perhaps, as reliable as some suppose.

The other case in which I used carbolic acid was in that of a cow kept by a gentleman for his own private use. The animal had every care and attention, and the acid was used thoroughly and persistently. During her sickness the gentleman required his dairy woman to milk the cow every day, to relieve the udder, and add to the comfort of the animal. The cow was a very good milker, but on the second or third day previous to her death, she yielded, perhaps, a pint. The gentleman had two full grown Maltese cats, which he was in the habit of feeding himself, but being in a hurry in the morning, he directed the servant girl to feed the cats, (who always ate breakfast at the time he did) with milk. He did not intend that they should have the milk from the diseased cow, but the girl so understood it, and gave it, and those cats died on the third day subsequent. They were found, on careful exam-

ination, made by myself, to present all the symptoms of the cattle disease.

Gentlemen using carbolic acid should bear in mind that it is a very active agent. It will take the skin off the animals as well as in human beings, and it should be used with caution, and then only when largely diluted.

DR. MILES, of Michigan—Allow me, sir, to ask a question. Was the temperature of these animals taken at the time the carbolic acid was administered?

DR. CLENDENNIN—Yes, sir.

DR. MILES—What was it?

DR. CLENDENNIN—It a little exceeded 103.

MR. POOLE, of Indiana—Mr. President, as this seems to be rather a class-meeting, for the purpose of informing one another what we know, it may be well enough for me to state a theory prevalent among cattle men, in regard to this disease, and that is, that cattle must necessarily pass over a trail, road or pasture, over which Texas cattle have passed, and that otherwise they cannot take the disease, and that it cannot be taken across a fence. Now, sir, as I remarked, it was between four and six weeks after certain cattle passed through our town, before our cattle commenced dying. I quit my business, and until the disease entirely ceased, I saw nearly every case that died in Attica. This happened in one case : In a field right opposite the depot where the cattle were unloaded, were a two-year old heifer and its mother; had been from early in the spring. They had never been out, never were out until the cow died, and I don't know but what the heifer is there yet. These cattle, as they were unloaded, passed right along close by the fence into the other part of the town, and so on east. This cow, which was a very fine one, weighing 1200 or 1400, took the disease. First, ticks were discovered upon her; in a short time she began to show symptoms of the fever, and some two or three days after its first manifestations, she died. The heifer all the while kept along by its mother's side, and was by her when sick, but was itself never sick, though it had these ticks.

This case proves conclusively to my mind that the Texas fever may be taken across a fence; that it may be taken without cattle passing over the same ground or trail, or eating from the same grass where Texas cattle have been. Now, from what my friend (Dr. Clendennin) stated, about the cats eating the milk and dying,

it would look very much as if any thing using the milk would die. There is, in my town, a certain maiden lady, very well off, in personal goods, and who owned a cow. The cow was taken sick, and the morning, or the evening, I think it was, after being attacked, the lady discovered something unusual about the animal. The cow was milked and gave a small quantity—not as much as it was in the habit of giving, which was as usual strained and put into a crock. The next day the cow was found to be very badly off, and the day after, it died. The lady had some preserves that she took a fancy to eat, and without thinking anything about the cow being sick, she took the cream from this milk and ate it with her preserves. A day or two after that she was taken quite sick, and upon thinking about the cow dying, and her having eaten this cream with her preserves, she came to the conclusion that as likely as not she was going to die with the Spanish fever, and not having her affairs in exactly the state that they ought to be, she sent for me to make her will. I went to her and got directions as to how she wanted to dispose of her property; rather made sport of her that she was more scared than hurt, and that there was no danger of her dying, but she said that she didn't feel well, and had a congestive chill or something of that kind, and wanted to make a will. I made her will. The next day she was about, as well as ever, and has never been sick since. I am satisfied that the cream from the milk of that cow, had no effect whatever upon her.

DR. JOHNS, of Illinois—I should like to ask the gentleman, Mr. President, if a post-mortem examination was made of that cow?

MR. POOLE—No, sir, but the cow exhibited exactly the same symptoms as the other cattle who died of the Texas fever, and the disease proved fatal in very nearly the same length of time and a little earlier than in some cases.

PROF. CHADBOURNE, of Wisconsin—I should like, Mr. President, to ask the gentleman, as his statement is a very important one, if these cattle passed along the side of the field in such a manner that there was no possibility of this cow coming in contact with them, or if the land was in such a position, that, as rain fell it would wash from their track into it?

MR. POOLE—The only way, Mr. President, that they could come in contact, was by one or the other pushing the nose through

the fence. That of course might have happened, but I don't know whether it was the case or not.

So far as the ground was concerned, it was about as level as this floor, and I wouldn't say which way the water would go, but would rather think that it would run from the field.

I know, also, that instead of the water that the cattle in that field drank, running into it, that it ran out of it.

THE PRESIDENT—As this tick matter has been mentioned, the chair would ask permission of the convention, to make a little statement regarding it.

On my farm, which is composed of several hundred acres, and in the country thereabouts, when the land was first cleared up, until the stumps were worked out, wood ticks were very abundant in the spring of the year. And on one of my outlying pastures, consisting of 100 or 150 acres, where some trees grew and stumps yet remain, the horses and cattle, when turned out in the spring, are so infested with these ticks, that we are obliged to get the animals up every few days, rub them over with crude oil or something of that kind, and scrape off these pests. They sometimes become so troublesome as to cause sickness. They annoy the horses the most, but get on the cattle to some extent. After five or six weeks, when it becomes hot and dry, the ticks all leave.

I only speak of this as showing that it is barely possible that ticks can propagate this disease, for they are in the grass, and as the cattle and horses feed, they crawl off on their noses or upon their bodies when they rub against stumps. We then never considered them as dangerous, though they are very annoying, as they get fastened in the hair of the animal and suck its blood. But when I have heard the tick spoken of as being the cause of this disease, I am free to confess that I thought it was nonsense, because ticks abound all over western New York, Canada, and I don't know but here, though perhaps not in your prairie country. But I take it that on wooded land, there are plenty of them in the spring and early part of the summer.

DR. KILE, of Illinois—I, for one, Mr. President, and I know that is the case with very many members of this convention, would be pleased to hear from Mr. Eaton, Mr. Alexander's superintendent, who has certainly had as much experience as any one man regarding this disease.

THE PRESIDENT—Mr. Eaton, will you be kind enough to come forward and let us hear from you?

MR. EATON—I am not a member of this convention, Mr. President, and as I did not expect to be called upon, I have not prepared any remarks whatever, but I will be very glad to give my experience and I will do so in as intelligible a way as I can. I have had more or less to do with this disease ever since it made its appearance in Illinois; and have gathered a few facts, part of which I have retained in my memory, and part of which I have committed to paper, that I might not forget them.

I might remark, before commencing with this year's experience, that last season we grazed upon the Broadlands farm, about 500 Texas cattle, a portion of which had been wintered in Missouri and a portion on the farm. We grazed these last summer, mixing them promiscuously with 4000 native cattle in the different pastures, and there was no appearance of the disease last season—1867.

This season we commenced receiving Texas cattle on the 31st of May. The first lot came up the Mississippi river by way of Cairo; were unloaded from the Illinois Central road, at Tolono, and were driven to the farm. We continued to receive different lots, weekly and daily, almost, nearly two months. I observed when the cattle first began to arrive at Tolono, that they were covered with ticks—and I mention this now as the tick question has been alluded to by several gentlemen. The cattle were driven to pastures, and I then observed further, that about ten days after we put the cattle into the pastures the ticks disappeared entirely.

THE PRESIDENT—How thickly covered with ticks were these animals, Mr. Eaton?

MR. EATON—I could not say, sir, just how many there were, sir, of course, but I think some had 10,000. In many places where the animals could not rub them off, as in the flanks and crotch, they were almost as thick as they could be.

THE PRESIDENT—Did these ticks keep growing and falling off, Mr. Eaton?

MR. EATON—When they became gorged with blood, they fell off, sir.

THE PRESIDENT—Not until then?

MR. EATON—Not until then; finally they all fell off, and I thought no more about them. But about the 25th of July, I discovered that small ticks, in countless numbers, were making their appearance through the pastures where the Texas cattle were grazing, particularly in the vicinity of their watering places, on posts against which they rubbed themselves, etc. I discovered myriads of them on the grass, all over the pastures, and in such large numbers and so generally distributed that it seemed to be impossible for the cattle to graze without eating millions of them. They were very minute, so small that you could hardly observe them with the naked eye, and in fact I could not see them plainly without the microscope. They seem to belong to the same class of insects as our native ticks, but differed in appearance; I supposed them to be a variety of the same species. Those little ticks made their appearance about the 25th of July, I think, being about two months after the first Texas cattle were brought there. In a day or two this disease made its appearance, and then both Texas and native cattle were again covered with these insects. When first discovered they were very small, but soon began to grow, and when gorged with blood, fell off as in the first instance—most of the cattle having a second or third crop. Attaching themselves to an animal, and hardly discernible to the eye, they would, in the course of two weeks, grow very large, drop off, and then, as I suppose, reproduce themselves.

The fact that the disease made its appearance simultaneously with the small ticks, led me to think that they might have some agency in causing it, but whether they did or not, I don't know. But, as corroborating my supposition, I would mention the fact that we had a hundred oxen that were exposed to almost every Texas animal that arrived on the place up to the 1st of July, when they were removed (merely accidentally, as I had no fear or thought of disease) to a fresh pasture where there were no Texas cattle and where none had been. These oxen remained in the fresh pasture about two weeks, when, having occasion to use them on another part of the farm, I took twenty-eight, brought them to the house and worked them some time, grazing them at night, or when not working, on pastures that Texas cattle had crossed over. Every one of those twenty-eight oxen sickened, and most of them died within two weeks after I brought them out of the fresh pasture; while the seventy-two that remained have never shown

any symptoms whatever of the disease—although treatment, as to food, water, work, etc., was the same in every respect (except the exposure to the Texas trail after July 1st,) as was that of the twenty-eight that sickened and died.

About the 1st of July, there occurred in my neighborhood, and under my own observation, three instances where portions of herds of native cattle, that had been grazed on Texas trails, were removed previous to that time to fresh pastures. Those escaped all sickness, while the remainder that continued to graze over this ground sickened and almost all of them died. I have several other cases similar to that, and I am convinced that if all the native cattle in our country exposed to the trail of Texas cattle had been removed therefrom, previous to the 1st of July, we should have had no Texas fever.

So far as the ticks are concerned, I believe those are the only actual cases that I have; but there is one similar, which I will relate. In Indiana, about two hundred Texas cattle, that I had something to do with, were put into a pasture where there were about a hundred natives, where they remained for about two weeks. At the end of that time about one-half were removed from that pasture to another, some twenty miles away—being driven over the herding grounds of the cattle grazing through that country, and put into another pasture with natives. The native cattle in the pasture where the Texas cattle first were, sickened and every one of them died; whilst the native cattle in the pasture to which the Texas cattle were transferred, remained healthy. That was Dr. Jones' case. The Texas cattle, when put into the first pasture, were covered with ticks, but by the time they were removed to the second pasture the ticks had entirely disappeared, so that those cattle, being at that time free from them, had no opportunity of catching the small ones, when hatched, as did the cattle which remained in the first pasture.

THE PRESIDENT—Do you know, Mr. Eaton, that the cattle died of the Spanish fever?

MR. EATON—I know, sir, that it was the disease called the Spanish fever—precisely the same one that has been described here. It occurred to me, when listening to Mr. Gould's remarks, whether the spores that have been discovered in the cattle could not have had some connection with these small ticks, that I know the cattle were eating all the time. I am not scientific enough to

know whether such a thing is possible, as that the ticks eaten by these cattle may have some connection with these spores.

DR. KILE, of Illinois—Pardon me for interrupting you, Mr. Eaton, but I would like to inquire whether cattle driven from Texas are infected with these ticks, or those only which have been transported by way of the river.

MR. EATON—I will give the gentleman my experience, Mr. President. We had on that farm some cattle that came up the river from the south, and also some driven across the country to Abilene, and shipped by rail from there. As far as my observation goes, the Abilene cattle were entirely free from ticks; and I do not believe, myself, that any cattle coming into our county from Abilene have communicated this disease; for I have not any knowledge of such a case, and cannot hear of any from authentic sources. I do not say, at all, that this is because they were clear from ticks, but the fact is certain that they were, and I don't believe that they have communicated this disorder.

With regard to my experience of Texas cattle in former seasons, it is this: that there is no danger of the disease after the cattle have wintered here; and this is also the belief of those around us. I know that last summer several herds of Texas cattle grazed all about us that had been brought into that region of country the previous fall and wintered there. They imparted no disease, whatever.

I have also been lead to believe, from my experience, that there is no danger, whatever, of this scourge being communicated after severe frosts, and my experience this fall proves it; for what native cattle we have on the place now, have been mixed promiscuously with our Texas cattle since the first of October. I considered it rather a dangerous experiment to allow them to be in such close proximity at so early a date; but I was very anxious to make the experiment—whether it would then do to intermix them. I did do so, and they have been running with the Texas cattle since about the first of October, and we have had no symptoms, whatever, of the disorder in our place since then.

If there are any further questions that gentlemen wish to ask me, I shall be very happy to answer them.

MR. STOCKDALE, of Ohio—How is it, Mr. Eaton, about sucking calves not dying when the mothers have the disease?

MR. EATON—There are cases of that kind ; I have known such. My experience has been that a greater percentage of old than of young cattle are affected with the disease. I think that observation warrants me in saying that the percentage of deaths is greater in proportion to the age of the animals. Very few calves died through the country. They almost all escape, and so do perhaps fifty per cent. of the yearlings ; twenty-five per cent. of the two year olds, fifteen per cent. of the three year olds, and so on. As you advance in years, the percentage of deaths is much greater. That I found to be the case, not only on the farms I had charge of, but also in that entire section.

MR. MCCOY, of Kansas—Mr. President, I would like to ask the gentleman how many Texas cattle he had on his farm, and how many native ?

MR. EATON—We had some forty-six hundred odd Texas cattle on the farm during the summer, and in the neighborhood of six hundred native from first to last, mixed together promiscuously, without any attempt at all to keep them separate.

I will say, by the way, that I have seen ticks on calves ; and perhaps I may as well say that out of the hundreds of sick animals I have examined, I never saw one that did not have more or less ticks on it, though in many that I examined it was very difficult to find them. For instance, my neighbor, Mr. Sullivant, came to me one day, after I had been talking about this matter, and said that I would have to give up the tick theory ; and was so much in earnest about it that he said he would give me a dollar apiece for every tick that I would find in a cow of his just dying. So I went down to see, and took my microscope with me, and after some considerable search, I began to find the insects, and in such numbers that it would have taken all his Texas cattle to have paid me if he had lived up to his bargain. [Laughter.] I found myriads of them, though I could hardly discern them, with the naked eye, until I found their haunts.

DR. RAUCH, of Illinois—Mr. Eaton, will you please to state whether it was a microscope, or simply a magnifying glass that you made use of ?

MR. EATON—A magnifying glass, sir.

MR. McMILLAN, of Ohio—One of your answers, Mr. Eaton, is calculated to leave the impression that no cattle have ticks except those transported by public conveyance.

Mr. EATON—I never saw any ticks, sir, on those that came from Abilene, but I did not say that there were not any. My supposition about that is that they were originally covered with ticks, but shed them on the way, and had no opportunity of getting a second crop as they passed along.

Mr. CHRISTIE, of Canada—Do you say, Mr. Eaton, that no cattle coming by way of Abilene communicated the disease?

Mr. EATON—No case ever came within my personal knowledge, sir. I could not say that the Abilene cattle brought on the place communicated the disease, because in coming they passed a trail of southern cattle, and on that trail cattle died. I could not say that the Abilene cattle did or did not impart the disease, for it might have been them or it might have been the others, but my observations led me to think that the Abilene cattle did not, from the fact that I put them into a pasture where there were natives, who did not contract any disorder from them.

Dr. KILE, of Illinois—Will you be kind enough to tell us, sir, if you know, from what portion of Texas these cattle that came from the south were?

Mr. EATON—I think the most of them were, perhaps, from what would be termed the lower Brazos river, from the southern tier of counties on that river, and a few from the "Musquit" country. That was the information given me by the man who brought them here.

Dr. KILE, of Illinois—Can you tell us, Mr. Eaton, from your experience, whether the Spanish fever has ever been communicated by stock brought from northern Texas?

Mr. EATON—I do not feel competent to answer that point, because I have never known so much about the localities they are brought from.

Dr. CLENDENNIN, of Ohio—Do you know of any case, Mr. Eaton, where the disease has been communicated from native cattle to native cattle?

Mr. EATON—No, sir. If the tick theory holds good, however, I can see no reason why native cattle should not communicate the disease to native cattle, as well as Texas to native, if we only give time for the ticks to mature. If the ticks drop off on the grass they reproduce themselves, and if they get on any other native cattle they will certainly infect them.

Mr. EMERY, of Illinois—It takes about ten days, does it not, Mr. Eaton, for the large ticks to produce the small ones?

MR. EATON—No; my experience is that it takes about two months. From six to eight weeks after the larger ones fall off, the little ticks make their appearance. In regard to the twenty-eight oxen that took the disease, death ensued, in the fatal cases, within two weeks, and in more cases ten days from the time they were exposed the second time to the Texas trail.

THE PRESIDENT—Did they have any ticks?

MR. EATON—Yes, sir, those that died were full of them.

THE PRESIDENT—Were those cattle opened, and if so did you find them to contain ticks?

MR. EATON—They were opened, sir, but we found no ticks inside.

THE PRESIDENT—Were the paunches opened?

MR. EATON—Yes, sir, but we could not, with the naked eye, discover any in the intestines, nor could we with any magnifying glasses that we had. I would say that we nowhere found destruction of the tissues. No case that came under my observation had proceeded so far as that.

DR. RAUCH, of Illinois—Will Mr. Eaton please state why, in his opinion, sucking calves do not die when the dam is diseased?

MR. EATON—No sucking calves died on my hands at all. I had a number of cows die that had sucking calves, and I supposed that the calves would die, as we had no milk to give them. I had so much other business to attend to that I did not give them any special attention, and, very much to my surprise, they all lived. They all ought to have died, really, according to the general order of things, [laughter] and this was the case with almost all of my neighbors, who lost their cows and saved the calves.

DR. RAUCH, of Illinois—If Mr. Eaton will pardon me, I would at this time like to make a statement with regard to the use of the milk of cows suffering with the Texas fever.

MR. EATON—Certainly, sir.

DR. RAUCH, of Illinois—As the poisonous effects of the milk obtained from diseased cows has been alluded to, I would state that, so far as my observation went, no apparent injurious effects upon the health of individuals followed the use of it, having made special inquiry in regard to the same. In a great many instances that fell under my notice, especially among the poorer classes of inhabitants of the 5th ward of the city of Chicago, where a great many cows died, the milk was used almost to the time of death,

and in some cases as long as it could be obtained from the cow, without any immediate bad results. This was the case where the animals were not seen by an officer of the board of health or myself before death, as instructions were always given to throw the milk away, lest injury might follow its use.

MR. EATON—Since the gentleman has touched upon that point, Mr. President, I will relate my experience in regard to that matter. When the disease first made its appearance, it usually attacked our milch cows, and it seemed to be more fatal among them than any other cattle. I continued to use the milk very freely as long as we got any, and did so without thinking there was any danger. I suppose if I had taken any thought, I would not have done so, but I did use it until the cows dried up, and that, too, without any bad effects at all.

MR. CHRISTIE, of Canada—Mr. President, there is one point which I think especially worthy of notice. From what fell from the gentleman (Mr. Eaton), it may be inferred, so far as his experience goes, at all events, that cattle which came by way of Abilene did not contaminate others. Now, I will simply say, for the information of Mr. Eaton, and others who have heard his statements, that, in this very county, the Canadian commissioners in the month of August found this disease to have been imported by cattle brought by way of Abilene, and that, too, on the farm of Mr. McCoy, one of the proprietors of the stock yards at Abilene. We visited his farms in August, found several dead, saw three die, and held twelve post-mortem examinations. One of those cases was certainly among the very worst that we saw during the whole of our tour.

I find in the report of the commissioners sent out by the Pork Packers' Association of Chicago, and to which I have already referred, the following statement:

“Our next point was at Abilene, where extensive arrangements for handling and shipping this class of stock had been made by J. G. McCoy and Co. These yards were completed and ready for use September 5, 1867, after which time, in that year, about 1,000 car loads of Texas cattle were received and shipped east from them. From all we could learn there was no disease communicated from any of the cattle received at that point to the native stock of the neighborhood. The disease not following these cattle, in a measure threw people off their guard, and with the early

spring of the present year, active preparations were commenced by the drovers for a large business in this class of stock. The journey overland was made with more than usual expedition in many cases, to take advantage of an early market—the first shipments being made June 10th; and up to the time of our visit over 900 car loads had been shipped east. We found on our arrival at that point that the disease had recently broken out among the native stock, and scarcely an owner was found who had not lost more or less. Post-mortem examinations showed the same we had found elsewhere.” Then, following that, we find: “On passing over the Smoky Hills we came to a herd of cattle, where we found a Texas steer, which had died during the night previous, not yet cold. The animal was carefully examined, showing the same general appearances that had been seen elsewhere in the native stock. There was the absence of bloody urine. There is no doubt that the animal died of the same disease that has affected the native stock.” Then, in commenting upon their experience, they say: “Thus we found on the borders of Kansas the disease developed in the Texas stock, which we failed to find in the whole of our trip previously, through Missouri, Illinois and Indiana.”

I think these facts, as there stated upon experience, establish beyond all question this, that the disease is communicated quite as rapidly by cattle brought by way of Abilene, as by those brought by more southern routes and from Cairo by the Illinois Central. This point I wished to refer to in order that there might be no misapprehension on that point, as seems to me to be very common, because if it can be shown that these cattle, brought from southern Texas and northern Texas, have the same power of imparting disease, then the precaution should extend to one route as well as to the other. In fact, the case which we witnessed to-day was that of a steer brought from Abilene; and although it was said to be a Texas steer, my impression is that it was not full-blooded. At all events, if it was brought from Texas at all, it was brought by way of Abilene.

MR. EATON—With permission of the convention, Mr. President, I would like to make one remark.

THE PRESIDENT—Certainly, sir.

MR. EATON—I gathered from the remarks of Mr. Christie, that he understood me as saying that Abilene cattle communicated no disease.

MR. CHRISTIE—No, sir; not at all.

MR. EATON—What I desired to say, Mr. President, was, that no case had come under my observation.

MR. EARLE, of Indiana—Mr. President, our firm in Indiana have been handling Texas cattle for the last two years. The first lot, some 300 head, we purchased in Chicago, about the 1st of October, 1867. We drove these through the country to our farm, sent our man back, and bought about the same number—350, I think.

Our young man then went to New Orleans, and there purchased three hundred, getting them up the 1st of January. We unloaded them at Attica. All except eighteen, that were badly bruised, and that we lost, we finally took to our farm along in February, and mixed them up during the winter and all the summer with our native cows; and when the spring opened they were all very healthy, and took on flesh. They were very fat, and a great many cattle men came from a distance to see them. I believe the stock men agreed that they were as fat a lot of cattle as were ever seen in the west.

This spring we purchased 2,000 cattle, to be delivered at our place in June; but part arrived there about July, the second thousand reaching us about the 20th. Those cattle have done very well, are very healthy, weigh over 1,100, and are taking on flesh. We have mixed them with our cows and oxen without any damage.

At the same time, early in the spring, we sent a young man to Texas, who bought 600, and shipped them up. At the same time we bought about two hundred and fifty at New Orleans, that came up at nearly the same date. The first lot arrived from New Orleans about the 15th of May; the Texas cattle got through about the 1st of June. We kept them where there were some cows and oxen exposed, and they died—eleven head; and that was the extent of the loss on our place.

My experience accords with that of Mr. Eaton: that the Texas cattle were perfectly healthy; they did not affect our oxen or cows.

As to the ticks, there were but very few to be seen on the Abilene cattle. The southern cattle had great numbers of them. Some of the animals that came through from Texas were so infested with them in the flanks and between the hind legs, that

you could not put a pin down without touching one of them. They looked almost as if they were on top of each other. Texas cattle did not seem to mind them, although they disturbed our native cattle very much. After four to six weeks had elapsed, we found our mules and horses covered with these little pests, and they became so very thick on their flanks, etc., that we were obliged to clean them off.

From the 2,000 head of cattle that were taken off at Danville, carried out to Lafayette and pastured there, no trouble whatever has resulted.

My impression is that there has been much less trouble with the Abilene cattle than the southern cattle. It may be that, in some way or other, their being driven through the country clears them of the disease.

MR. STOCKDALE, of Ohio—I would like to ask, sir, if the cattle had any ticks in the spring?

MR. EARLE—No, sir; none at all.

DR. RAUCH, of Illinois—I would like to ask the gentleman if he knows from what counties in Texas his young man purchased those steers?

MR. EARLE—Well, sir, we got one little lot of sixty cattle at New Orleans. About 225 wintered there, and 60 head came in on a schooner from the gulf, which were put into this lot and brought up in the summer. Our young man said that he did it as an experiment, to see how the cattle would turn out; and they did very well.

DR. RAUCH, of Illinois—Am I to understand you, sir, that part of the cattle purchased in lower Texas were driven across the mouth of the Red river, and a part shipped to New Orleans?

MR. EARLE—Yes, sir, and were mixed on the farm afterward. The first lot we bought in New Orleans were wintered in Louisiana, except this little lot of sixty.

MR. MCCOY, of Kansas—Mr. President, in regard to the matter whether or not cattle coming by the way of Abilene communicate the disease, I feel somewhat interested. In June, 1867, I started west to find a place somewhere beyond the settlements—to some point where the cattle of the south-west, particularly Texas cattle, might be driven unmolested. My idea was to establish a station from which a Texas man with Texas cattle might stand at least an even chance of getting them to market undisturbed—a common

center, where the buyers, coming from all over the country, might meet them, and thus create a market, in case that free right was denied the first holders to bring through their own stock. I made this determination in June; having selected my location, sent out a competent man, and, about the 1st of July, returned myself. Even at that time, cattle had begun to gather about this center, and they continued to congregate from that time onward.

And, by the way, I will say here that I do not think the state of Texas is generally understood; but if you will only stop to think of it, you can but be impressed with the vastness of its area—being six times the size of this noble state—and its infinite stock-raising capabilities, producing, as it does, three and an eighth millions of cattle—one-eighth of all within the United States. So deeply were its people impressed with the importance of some such move as we then made, that, during our canvassing of the country, the invariable answer to the question, “what is your great want? what will contribute more than anything else to your well-being as a state and as individuals?” the answer invariably returned was, “only give us some outlet; some opportunity of getting to market such portion as we may desire to bring of the innumerable herds that are now roaming over our vast prairies, and are comparatively worthless for want of an outlet.” I will state here, gentlemen, that at the close of the war, cattle were almost worthless in that section, on account of their untold numbers; and that this was the fact you will see at a glance, when I state to you that from a herd of 5,000 we bought 300 of as choice cattle as I ever saw for six dollars apiece; or rather, I would say that the average cost was about four dollars and a half apiece; while, at the same time, if those very cattle could have been lifted up, transported through the air, and set down in the Chicago market, they would quickly have sold for seventy-five.

Having this knowledge of the situation of matters, I selected that point with which you are already familiar, as the one best adapted for a depot at which these vast herds might congregate, be sold, and placed *en route* for market. I did this in the latter part of June, as I have already stated, and by the middle of August thirty-five thousand cattle had gathered around that common center, mingling freely with the native cattle all through the summer. On the 5th of September, we opened those yards and began shipping.

And right here I wish to say this regarding the Texas cattle plague: that notwithstanding there was this vast congregation of Texas cattle, mixed up promiscuously with the native cattle, not a single case of that disease occurred—not one.

A word in regard to the routes by which these Texas cattle in former times reached a market. They were sometimes shipped around to New Orleans and then came forward upon the Mississippi, but most of them were driven directly to the mouth of the Red river, and I beg leave to call your attention to the character of the country through which they in that case passed. They were all the way exposed to a broiling, almost a tropical sun, through a region covered, in a great measure, with the pitch-pine, from which the resinous substances fairly boiled under the influence of this intense heat; through a country covered with an almost worthless grass, so utterly miserable that no steer in good flesh would eat it at all, and which a poor steer would only brouse, rather than starve. Such was the character of a great portion of the country over which these cattle were obliged to pass.

At the river there is a vast swamp—or rather a great timber country, interspersed with innumerable swamps—where the cattle could not be kept waiting, and where it was absolutely necessary to push them forward by the first boat, at whatever price might be asked, when, of course, the motto of the steamboats was, the more cattle, the more dollars. Consequently, of course, the steamers were so much crowded that it would be impossible for a single animal to lie down during the whole trip, and so that there was no such thing as giving food or water to one of them, in a proper manner. I obtained part of these data of a gentleman entirely familiar with this subject, who assured me that on account of the way in which these boats were so densely packed, the cattle could not by any possibility change their position, but were obliged to stand for from six to eight long days—the only way in which food could be given them being, to throw it over them and let one eat from the back of another—the only water that they got being such as could be thrown over them by the hose.

It is not to be wondered at, that after being subjected to such treatment as this, they should be diseased on arriving at Cairo, and be capable of imparting disease to the devil himself, almost, I was going to say. I do not hesitate to say that any cattle in this

country, I don't care how healthy, after being treated in this manner, would become diseased beyond the possibility of recovery.

Respecting cattle that are driven from the west, our invariable experience has been, that when cattle have been wisely selected, driven rightly, handled as they should be, making daily only the proper number of miles, and stopping when they ought, and properly cared for as to food and drink, they have invariably arrived in good condition, healthy, sleek, and as a rule, there was no disease. I do not pretend to say that no cattle that came from that way, imparted the disease.

It is a fact, that when those thirty-five or forty thousand cattle were at our station in July and August—when there was so severe a drouth through the country that corn turned brown, as after a frost, and when all of our water was well nigh dried up—when it was very hard, indeed, to get proper feed and still harder to provide drink—some of them died; but I assert it as a fact, and I believe that gentlemen will verify my statement when I say, that when the disease did appear in cattle coming that way, it was in a mild form, and in many cases not fatal.

As to the causes of the Texas fever, I have long been of the opinion, and that opinion based on thought, reason, observation and inquiry, that it can be traced largely to the barbarous manner in which these Texas cattle have been handled; that in and of themselves, they contained no disease, for in their native state, they are as healthy as cattle any where. In Texas, and also in the country about Abilene, the drovers, a venturesome, wild, risky class of men, collect about them a set of younger men, as much wilder than they are as they are wilder than common men, whom they would send out to gather and drive in, and start to market, their cattle. On inquiring of them as to how they got along in collecting them, a common answer would be, "oh, we give them hell!" "What kind of drive do you make?" and they will tell you ninety miles in two days.

I tell you, gentlemen, that these cattle are, of all cattle in the world, the most tenacious of life, or the last one would be killed before getting here. Native cattle would not bear half the abuse—it would kill them stone dead.

I call upon every one who has had an opportunity of examining diseased cattle through Illinois, to testify if the larger part that have died in Illinois have not been lost on the line of the Illinois

Central. And, as to the disease being almost certainly fatal, I was about to assert that scarce two hundred cattle have died in Illinois as the result of bringing animals from the west. I don't know as I would be quite warranted in making that statement, but I have watched the matter closely and I do know this to be true: that wherever a man has brought through a drove that has been carefully selected, well driven and cared for, that herd will tell its own story upon arrival; and that, when you find cattle looking poor, rough, running off when you walk towards them, and with that peculiar air of wildness about them, you may be assured, beyond all possibility of mistake, that they have been promiscuously collected, badly handled and rushed forward to market by a man who esteems the best hand to be the one who will drive them the longest and whip them the most in a day.

As soon as the weather turned cold the cattle stopped dying.

THE PRESIDENT—Allow me to interrupt you, sir, to inquire if both heifers and cows are driven up, habitually?

MR. MCCOY—Yes, sir, they drive everything, from a sucking-calf to a fifteen year old steer.

THE PRESIDENT—What do they do with the female cattle?

MR. MCCOY—I suppose you have been eating some of them in this town.

THE PRESIDENT—I asked, because I never have seen one of them.

MR. MCCOY—I was going on to say that the cattle, when they arrive in May and June, are not fat enough to go to market. During this last spring especially, it has been the case, that a large percentage of four-year-olds, or older, have been bought by Indiana men, and sent forward here for pasture. And I will say, by the way, that they were bought instead of higher priced cattle, for the purpose of making money on them, and I leave it to every one who has handled them, if money has not been made—I say that it has, and largely, too.

THE PRESIDENT—I don't exactly yet understand, Mr. McCoy, what becomes of the cows.

MR. MCCOY—I was about to say, sir, that they were held there until they got fat enough for beef and then they were shipped to market, many of them being bought by residents of Kansas, Nebraska, Montana, Colorado, Idaho, and some going to California, even.

And in that connection I will say, that there are very few in Texas who spay their heifers, but they are very few indeed, for it is a little too much work for the southwestern man. Their cattle are so comparatively worthless for want of a market and an outlet, and so many difficulties have been thrown in their way, that the raising of cattle in Texas has been very much discouraged thereby. The dealers are so indifferent that I never yet have seen a man in Abilene who could tell, within five hundred, how many cattle he had, while I have often seen men who didn't know within ten thousand—there are so many of them and they are so nearly worthless that no particular reckoning is kept of them. Cattle are recognized by the brand. The laws of Texas require cattle to be branded when a year old (and not until then, as I understand it), and if those cattle are found one mile or a thousand miles away, the man whose brand they bear is considered authorized to take them; while on the prairie, cattle seemed to have no value at all, but to acquire it the moment that they arrived at our station; and it was a case of almost daily occurrence for a man, seeing fifteen or twenty of his cattle in another's herd, to "go for them," drive them out and take them off.

MR. CHRISTIE, of Canada—Mr. President, I do not wish the gentleman from Kansas (Mr. McCoy) to suppose that anybody was speaking of him or his establishment with the least intention of saying anything derogatory. I am quite aware of the great exertions made by himself and his partners, which are very deserving of praise—they are so—I feel that. Besides that, I am quite willing to admit what I think is beyond contradiction, that the cattle arriving by way of Abilene, are in much better condition and are treated much better than cattle coming by the river.

I will not have him labor under the impression that I intended any reference to himself personally, or to his cattle. I spoke in order to counteract the impression that I feared might be left on the minds of some, at least, to-wit: that cattle coming from the south alone, were those which contaminated others.

MR. RAUCH, of Illinois—I move, Mr. President, that this convention do now adjourn to ten o'clock to-morrow morning, Wednesday Dec. 2d.

The motion prevailed.

SECOND DAY—MORNING SESSION.

The convention met, pursuant to adjournment.

THE PRESIDENT—If any gentlemen have arrived since yesterday who have not reported themselves, as delegates, we shall be glad to have them forward their names to the secretary, and to affiliate with them.

MR. HAMILTON, of Pennsylvania—Mr. President, I am directed by the Pennsylvania delegation to present the credentials of the following representatives from that State :

E. C. Hume, A. Boyd Hamilton, Dr. Hiram Corson.

DR. JOHNS, of Illinois—Mr. President, I beg leave to lay on the secretary's desk the credentials of Dr. N. N. S. Townsend, of Iowa.

MR. REYNOLDS, of Illinois—I move, Mr. President, that the gentlemen just named be admitted as members of this convention, without going through the formality of having their credentials passed upon.

The motion prevailed.

MR. SMITH, of Missouri—Mr. President, I believe I have some information on the subject of the Texas cattle fever, upon points not yet presented to the convention; but before presenting them I would like to say a few words relative to some matters that have already come before the convention.

1st. In regard to the enterprise at Abilene, it deserves high approbation. When considered simply as a financial speculation, I do not think that the go-aheadativeness and sagacity which conceived and carried it forward, can be too highly estimated; but when the gentleman asks our sympathy for men who have grown rich by doing nothing themselves but just lying back and allowing their herds to accumulate, I think it is very much like appealing to our feelings in behalf of the capitalists of Wall street, who, in the financial turn of the country, find themselves overburdened with greenbacks. If those capitalists chose to send out their money into the country to provide us with means wherewith to work, they certainly would be deserving of great credit; but if, with those greenbacks, they sent out a sentence of death to us, or imposed conditions which would in the end ruin every man who took them, it does not seem to me that they would merit anything

at all. This illustration, as I conceive, applies exactly to this Abilene enterprise. It is not disputed that these Texas cattle, when driven through the country, will impart disease, and I have no doubt that if we should take two men, one of whom brings cattle to us by way of the Mississippi, and the other by way of Abilene, they would mutually condemn each other. I do not think, myself, that simply because Texas cattle reach us through the one or the other of those channels, they should therefore be allowed to, at all times, come into this country. Besides that, so far as one or the other of these routes being the principal one, more cattle have probably passed through the western counties of Missouri and the eastern counties of Kansas, than through any other sections—and what renders the matter worse there is that the driving is not confined to any particular tracts; and notwithstanding they are brought through in a more humane manner than through any other channel, they disseminate the disease more widely than any other herds. The cattle started from the Indian Nation and driven up through these counties, feeding on the rich grasses that grow so luxuriantly there, have nevertheless spread this pest so extensively through the country, that the people are desperate and are determined that no more cattle shall find a market by passing through that section of the country.

It seems to me that all these theories concerning the disease are premature, and when a committee was proposed who should report regarding the propagation of this disease, etc., I could not think of any time less than three years, in which they could possibly do so. A few such facts as were brought before us yesterday by the gentleman from New York (Mr. Gould), are worth all the theories entertained by the largest cattle growers that ever existed in the United States.

So much has been said and written upon this subject, that it would seem as if little which was new could be offered; but so long as there is doubt and discussion upon the matter, we cannot dispense with any facts which may throw light upon it.

Theories can only be constructed upon a foundation of facts, and until we have more of these it is hardly safe to undertake to build up the latter. It is even denied by some that there is any cause for action; that Texas fever is a mere chimera, begotten in jealousy, and hatched in the interest of farmers and cattle dealers of the border states, who wish to stop the trade in Texas cattle,

in order to remove competition in business. I know that such was the feeling among many, and I confess to a participation in it before I went to live in the district which has suffered most by the disease; but the experience of last summer ought to convince the most skeptical that it is a reality, and that the damages it inflicts are worthy of national consideration.

So long as these damages were confined to the remote borders of Missouri and Kansas, very little sympathy was elicited, and it was with some difficulty that the legislatures of the states most interested could be induced to pass laws upon the subject; and even when they did, they were so imperfect that the evil was only partially remedied. But the experience of last summer was too severe, and the lesson it taught too plain to be longer neglected.

I have here the report of Dr. Badger, published in the Missouri Agricultural Report of 1866. Before proceeding to read it, however, I would like to say that Dr. Badger has lived in Vernon county for a great many years; that he is an intelligent man, and one every way competent to observe and explain himself understandingly. And I felt, too, as if I ought to say this in relation to him, because very many things are observed by men, who, however competent in other places, are, like myself, not competent to investigate the pathology of the disease.

Before, however, quoting his remarks, I will read that portion of the report immediately preceding them:

"TEXAS FEVER AMONG CATTLE.

"Another pest which has made its appearance in the state within the past season is the 'Texas fever,' 'Spanish fever,' or 'Texas murrain,' as it is variously known. This is not a new pest in the state, as the statutes show. There was, however, almost an entire immunity from the disease during the war, when the driving in of Texas cattle was entirely suspended, with the exception, perhaps, of a very few isolated cases, which gave rise to the only cases occurring during the war.

"The subject is an interesting one, and one which will demand legislation. The existing law in the case seems to be entirely inadequate for protection, and the people have frequently been obliged to resort to other means.

"Mr. William Montgomery, of Stockton, Missouri, writes: We are at a loss as to how the disease is communicated, as there is no

apparent disease among the Texas cattle ; but wherever they are herding any length of time, our cattle take some disease peculiar to dry murrain, and the actions of the animal, with the disease, are similar to a horse with the botts or colic. They seem to suffer severely with inward fever. When dissected, they appear to be dry and scorched with inward fever. Nearly all that take the disease die, unless treated immediately. Our remedy is, to drench them with lard, or slugs of fat bacon. It does not look reasonable that the Texas cattle could communicate the disease themselves ; but the general opinion is that the disease is communicated by the breath.

“As to an amendment of the laws, we think it would be well to have them so amended as to prohibit Texas cattle from passing through the state, except during the cool season of the year, as we have noticed no disease similar to Texas or Spanish fever, except during warm weather—mostly contracted near ranches and watering places.”

Another gentleman of southwest Missouri, writes as follows : “I have lost very heavily this season by the ‘Texas fever,’ and although it is very strange to me how an animal that is healthy itself can impart so dangerous a disease to other healthy cattle, I am nevertheless satisfied that it can be done, as I have lost about one hundred and fifty head by the disease. They show the first symptoms by standing perfectly still in the position that they take to hold back, head down, fore feet thrust a little forward, ears dropped down, and are neither hungry nor thirsty. Their bowels become very costive ; in fact it seems as if their intestines became entirely dry, and unless an operation can be obtained, they die. Our most successful mode of treatment was to make them swallow a piece of fat meat (bacon), and force another one up their posterior (rectum) with the arm, as large as admissable, and as far as possible. We saved about sixty after we adopted this mode of treatment ; but the hair came off in spots from one to five inches in diameter. I doubt whether it can be cured in every case. I have heard a great many theories about it ; but I understand you want facts, and I have written them.

“There is another fact that cannot be gainsaid: that is, since 1861 there has not been a single case of Texas fever in southwest Missouri, neither has there been any Texas cattle. Until the past spring and summer we have had Texas cattle and Texas fever. I

have been dealing in cattle all the time since 1861, and in the time did not lose a brute until the past summer; so I say it is the southern cattle, and they ought not to be allowed to enter the state from the 15th of April to the 1st of October. Kansas learned this, and has legislated accordingly."

Mr. Huron Burt, of Williamsburg, Calloway county, says: "We have had some experience with the disease on the Nine-Mile prairie. Last spring, early in April, a lot of oxen passed through our county, on their way west, for some overland freighters, that had been shipped from New Orleans to St. Louis. The grass was just starting forth, and the cattle were occasionally stopped to bite at it. Wherever they grazed the virus of the disease was left, and all cattle that fed on the same ground on which the Texas oxen grazed, were afflicted with the disease—nine-tenths of all the cattle affected, dying.

"The disease was communicated for several months, in fact, during the whole season, until the unusually heavy rains in September, which seemed to have washed away the seeds of the disease that had been so fatally implanted all along their route. It was necessary for an animal to feed on the self-same ground to contract the disease. Those feeding up to the very verge of the poisoned ground, with only a fence intervening, were unharmed. And I am further informed that the disease is only communicable from Texas cattle. Stock, feeding after our home cattle that are diseased, escape unaffected.

"This has proven to be the most fatal cattle disease, and the most destructive to the stock growing interests, ever known in Calloway. Captain Hobson lost all his cattle, some fifteen or twenty, save one. His son lost all of his. Mr. Everhart lost several; among the number, a very fine bull, which is a loss, indeed—animals of this character being quite scarce in our section. Mr. Joseph Grant lost some valuable cattle, besides others that do not occur to me at this moment. If the intervention of law was ever required in any case for the protection of stock growers, it is in this instance; and I am heartily glad to see the movements made in this direction. Four and a half or five months should be the extreme limit allowed for passing this kind of stock through our state, and I am not sure but a shorter limit would be justifiable; say from November 15th to March 15th."

The following communication from Dr. Albert Badger, of Vernon county, Mo., gives the most full account of the disease that we have been able to obtain :

THE SPANISH, OR TEXAS FEVER.

“The Spanish or Texas fever is well known to the older residents of this county.

“This disease was first recognized as having been propagated by cattle driven from Texas some twelve or thirteen years ago ; the disease having been in the county some two seasons previous to its having been traced to the Texas cattle.

“From the first breaking out of this fever, it was found to be confined to the large roads or highways running through the county from south to north, and finally was centered on the Texas cattle, I believe, in the year 1853, by its being confined to one highway through the country, over which these cattle passed in that year. On this road the disease was quite fatal, killing about fifty per cent. of all the cattle on the road ; and persons living near the water courses over which the road crossed, lost as high as ninety per cent. Captain Freeman Barrows, and Peter Colley, the one living at the ford of the Osage river, [the other near by, lost the latter per cent.; one of them owning about one hundred head, while the former had considerably above that number. Mr. Collins, living at the ford of Clear creek, south of the above, lost an equal proportion.

“The disease being in no other part of the county that year, satisfied the people, on this road at least, that they had found the true origin, as it had been among the cattle in the county for two summers past. In a season or two after, almost every settler of the county was convinced that the Texas cattle, in some way, communicated this fever to our stock, although a few persons living secluded from the great highways were unbelievers, and still remain so. In fact, the way this disease is propagated, the obscurity surrounding it for want of a defined cause, together with the different conflicting opinions of almost every citizen familiar with it, gives them, at least, a reasonable excuse for believing no one's opinion. Two things only—the symptoms of the fever and its fatality—are agreed to by every one ; the latter being much greater in a warm, dry summer than in a cold wet one ; the disease

always ceasing when the frosts and freezes have killed the vegetation.

“The first symptoms of the fever discoverable, several days before there is any appearance of the sickness, is a dry cough, which is noticeable by careful observers. In a few days after this, the nose becomes dry, and the ears slightly drooping, when more flies will be found to collect on this than the other cattle. At this stage, the breath will be found to have lost its sweetness, so peculiar to grazing cattle, and assumed the sickening, feverish smell, generally, if not always, found in Texas cattle, which I can best describe by comparing it to the smell of our slaughter houses, or constantly crowded stock yards in cities. From this condition, in one or two days the fever gains its highest stage, and is found to have disseminated itself over the whole body, the heat being very great, and the arteries of the neck are seen to beat in short heavy throbs, and the ears very much lopped; the hinder parts reel in walking, the animal getting up or lying down with difficulty; the breath and exhalations are very disagreeable; the end of the tail is usually hollow for two or three inches; the pith in the horns has commenced to decay, if not already decayed; the animal refusing to notice the herd, remaining stupid, if not disturbed, neither seeking food or water. Some, in this stage, will pass water mixed with blood, and dung naturally; others will pass water of a natural color and not dung at all, or but very little, and that in a dryish lump. In another type of the disease, which will occur perhaps in every eighth or tenth case, after being taken the same way, and having the same symptoms as those described, even to the hollow horns and tails—the animal does not get weak, sluggish or stupid, but is always to be found on its feet, in a watchful attitude, with head turning to any noise, which, if close by, it rushes toward, even through fences or against trees; the eyes being of a green cast, very glaring and wild; those of the first type have a dead, sleepy and glazed appearance. Both these classes die, as I have described them, without any change, except their hair deadens before death, and has the appearance of that on a dry hide.

“The drove mentioned as having passed through the country in 1853, was owned by Mr. Richard Burriss, of Spring river. They were driven from Texas the fall previous, and wintered about fifty miles south of here, near Sarcxie. In the first days of June,

Mr. Burriess came into this county with his cattle, apparently healthy, in good order, and no lame ones in the drove—numbering about 450 head. He made a slow passage through the county, grazing in the best grasses near the road, unmolested, as no one knew at this time that this species of cattle propagated a disease to ours. In the first days of July the fever broke out on the road traveled by this drove, lasting until the frost put a stop to it, with the fatality previously mentioned. As the disease, this year, was in no other locality, except where these cattle were driven and grazed, the citizens, after carefully tracing their route through the county in all their wanderings, came to the conclusion, for the first time, that this fever was engendered from the Texas cattle. This was verified most fully in the next year; and up to the outbreak of the war, hundreds of circumstances have occurred in proof that they were not mistaken.

“No Texas cattle, until this year, have been passed into or through this county since the year 1860, except two yoke of oxen in the fall of 1865, worked here by Mrs. Box; neither has there been a single case of fever during this period, or any fatality among our cattle. Mrs. Box’s were, so far as could be seen, healthy and not lame. The neighbors whose cattle came in contact with these oxen were Mrs. Smalley, Mr. Cothran and Mr. Packard, each having the Spanish fever among their stock, losing some, notwithstanding the lateness of the season.

“About three thousand head of Texas cattle passed through this county in the month of June of this year, and a portion of them reached six or eight miles into the adjoining county of Bates before being turned back by the citizens of that county. They returned on the same road previously traveled, making no delay in their passage either way more than was necessary. The disease did not break out for some six weeks or two months after the passage of the droves, many more recovering from it than usual—and about forty per cent. dying—extending into Bates county to the point where they were turned back. It proved more fatal in the crossing of water courses, killing about seventy per cent.

In 1858, my stock were exposed to this fever by coming in contact with a drove of Texas cattle. The fever was very bad among them, one or two dying every day through the month of August; they were in daily contact with Mr. Millender’s stock, who kept a herder, not suffering them to reach the grounds that

had been used by the Texas droves, yet he had not a single case of fever. When spoken to about keeping my stock from coming in contact with his, he told me there was no danger of our own cattle diseasing one another. I have since watched many such exposures, and in no case has the fever been propagated. The farmers have each an opinion as to how the disease was propagated to their cattle, some thinking it is through the lame ones, a few of which will be found in nearly every drove coming from Texas. Their feet become worn out and sore from long travel, matter forms between the hoofs and is left on the ground and in the water through which they pass, and it is contended this inoculates our cattle by being taken into the stomach or otherwise. Others think it is done by the excrements left by those that are lame, or the diseased ones; while some think it is through the slobber or froth which is left on the grass. On one thing they agree—that the fever is propagated in some way, raging until the cold weather puts a stop to it, no remedy appearing to have any effect. From the few cases mentioned, which are selected from many of like nature, I have been led to believe, first, that the disease is conveyed to our cattle by those from Texas; second, that the feeding of a large herd one winter in this climate does not stop the spread of the infection from them in the next season; third, that Texas cattle, in apparent good health, give disease to ours; fourth, that the disease is not contagious from our own cattle to each other; fifth, that killing frosts will stop the disease; sixth, that no remedy has been found to cure this fever.

“In a very close observation of this disease among my own and neighbors’ stock for the last thirteen years, I have generally found, on opening those that had died, but very little blood, and the following results: those that passed water mixed with blood, the kidneys and surrounding parts were entirely decayed, the other parts of the body sound; those that did not dung at all or but very little, with manure perfectly dry and partly decayed, while the large stomach would be more or less mortified—other parts healthy; those that appeared to dung and pass water naturally with a liver more or less decayed, the gall always swelled to its greatest tension—other parts healthy; those that were ever on their feet in a watchful attitude, the brain was found more or less decayed. This leads me to believe the disease to be in the blood, which finally becomes congestive, destroying the parts in a few hours

after it becomes seated, and no doubt in many cases could be cured if we knew exactly when and where it had located itself—blood letting not being sufficient, of itself, to check the inflammation. The hollow horn and tail, no doubt, is caused by the fever destroying the blood in the extremities before it does in the vessels, which it does, in a great measure, before death.

“This county has suffered very severely with this disease for a number of years, losing in the year 1858, cattle estimated to the value of over one hundred thousand dollars. The present law is very defective for keeping out the disease. First, it only precludes the sick ones from a passage through the country, and few men, under oath, can say that, because a steer has an unhealthy smell, that he is sick, when apparently he is in as good health as their own cattle. Secondly, in order to separate the lame or sick ones, if any, the drovers, under our present law, are required to impound them, in order that the selection may be made. How is it possible to imponnd from ten to seventy thousand head of cattle when the owner has not a single pound, and no means of getting one? If a farm was bought for this purpose, the country for miles around would be overrun and eat out by these cattle waiting their turns for examination, thereby destroying every head of stock in that and the immediate locality; in fact, why select the sick ones when there is equal danger in those that are apparently well?

“One thing is certain, this part of Missouri, one of the best counties in the state for raising stock, must quit the business, or our laws must protect us. This can be done by so changing them as to preclude this species of stock entirely, or let this state buy a right of way from some point on the railroad to the northern border of Arkansas or the Indian Territory, running as much as possible through our prairies. This will not interfere with citizens. Tax each head of stock, driven over this road, one or two dollars until the road is paid for; the drovers will readily pay this sum, which, no doubt, will pay for it in two or three years. I was informed this year that there was seventy thousand head of these cattle between this county and Neosho, a distance of not more than one hundred miles, and that many more would be driven next year, if they succeeded in getting through this. By this means, a great outlet would be furnished Texas for the surplus stock, and St. Louis would also be the gainer. This would seem to be better than a law excluding them; and, further, this great

highway, honestly conducted, would in a short time be a great source of revenue to the state. The drovers, this winter, on the meeting of the legislature, will spare neither time nor money to abolish the present laws, or getting relief in some other way. I propose for their consideration this road—without it they must give up their occupations or we must ours.

“Respectfully,

“ALBERT BADGER.

“NEVADA CITY, VERNON Co., Mo.”

The report goes on to say:

“Reports have reached us of the ravages of Texas fever from Kansas, Tennessee, Kentucky and Illinois. The losses from it have been heavy; in some instances very choice and valuable stock has been lost.

“Western states have been severely censured in some quarters for passing laws to prevent the introduction of this disease, attributing to us selfish motives, namely, the prevention of the competition of southern cattle in our markets. It will be seen, by reference to the opinions already given of farmers of southwest Missouri, a locality that has suffered, probably, more than any other, that no such selfish motive is apparent. They propose that the Texas cattle shall be prevented from being driven into the state during the warm season when the fever is so readily communicated, but to be allowed unrestricted passage during the cold weather, when the disease seems not be readily communicated. Dr. Badger proposes that the state shall purchase a right of way from the southern line of the state to the Pacific Railroad, on which Texas cattle may be driven at all times.

As before remarked, the subject has become one of urgent importance, and the legislature will be called upon to enact laws in the premises which will protect the interest of the state and the welfare of its inhabitants. A law entirely prohibitory, we think will be the only effectual method of keeping the disease out of the state. If southern cattle are allowed to be driven into or through the state at all it will be almost impossible to prevent more or less of our stock from the pestilence which they carry. Again, we think they should be kept out of our markets as a wise sanitary measure. It can scarcely be possible, certainly is not probable, that cattle carrying an infection of so virulent a charac-

ter can constitute wholesome human food. Who would, knowingly, eat the beef of cattle with such a pestiferous breath as these Texas cattle seem to have? It can be no favor to the consumers of beef to have that article cheapened in the market by the introduction of an article of such very doubtful, not to say injurious character. We should keep out the Texas cattle on the same principle that we would the small pox or the cholera. They are pestilential. Who could complain or who would suffer from such a law? Chiefly, it would be the drovers and speculators in this stock who care more for filling their own pockets than for the losses of others, or the health of the community.

Commissioners have been appointed, and a good deal of individual effort expended upon the subject; but in most cases, the inquiry has been in regard to the pathology of the disease, rather than the best means of its prevention. To show that legislative action is necessary, and that it should be uniform in all the border states, I have endeavored to obtain information from those most interested, viz: the farmers along the borders. In this I have been only partially successful; but as I know that the answers to my inquiries are all to the same effect, and would be if I should extend them ever so widely, I offer these I have as a sample of what might be expected by the most extensive correspondence:

MOUNT VERNON, Mo., *November 12, 1868.*

PROF. SPENCER SMITH.

DEAR SIR:—Yours of the fifth instant, came duly to hand; but, for the reason that I was very busy in court, I postponed writing until now. I have been living for thirteen years, or for the greater portion of that time, near the great thoroughfare for driving southern cattle to St. Louis, and during that time, up to the breaking out of the war, we had more or less of it every year, but the most we ever suffered was in 1858. I find, from conversing with others, and from my own experience, that it is much worse of warm, dry summers. Much depends, however, on the way or manner in which they are driven. Some drovers seldom have cattle infested with the disease; whilst others always have diseased cattle in their herds. In the course of my profession I have had several very good opportunities, testing this matter. I have heard over one hundred experienced drovers, dealers and farmers, etc., testify pro and con as to whether it was contagious or not, and also, whether our cattle became infested with it from southern cattle being driven through the country. But one of the best tests I have known, fell under my observation during the war. Previous to the war, the southern cattle were driven through the border counties of this State bordering on Kansas, at least, in

the south-west border counties; and we suffered from it, more or less, every year they came through. During the war, no southern cattle were driven through there, and not an instance have I ever heard where one cow died with that disease in that region during that time. But when we got possession of Forts Smith and Gibson, then again the Indian cattle were driven up where 'tis known as the military road, in Kansas, and all along that route they suffered severely from the disease. When in Missouri, twenty miles or even ten miles distant, no such thing occurred. The same could be truthfully said of every other part of Kansas, during that time. Now, again the cattle are brought through these border counties; and the result has been that almost one-half of the cattle in Newton, Jasper, Barton, Vernon and Dade counties, died from the disease this season, and the country where they traveled alone suffered. I am well satisfied, from all that I have seen and learned, that our cattle became infected by grazing where these cattle have grazed. There is one thing held out by the advocates of the traffic which is untrue, that is, that these southern cattle are themselves not diseased. I have handled some and seen many sicken and die with it, yet I believe they are not as subject to it as our native cattle; but they often times have it in their own country, as I have heard several men of experience testify. As to just where the seat of the disease is, I cannot say; but I believe it is in the foot. Old drovers have told me that cattle driven slowly and rested often, would never distemper other cattle, and I have found this to be true. Another thing is, that heavy cattle are almost certain to be diseased with it; while young stock cattle seldom have it if driven prudently.

On examination of cattle diseased, you will find by opening the hoof, that their feet are sore and continually throwing off pus. Some think this disease of the foot is caused by the "*boyer*"—a fly that is very numerous in Texas, and in some of the Indian countries—which bores in the hoofs and feet of animals, and sometimes ruins them.

I think the matter well settled, that the driving of southern cattle through our country is the cause of the disease; but I must confess that I have been at a loss to reason about it, as I would about almost any other subject.

Hoping your communication may result in much good,

I am your obedient servant,

NATHAN BRAY.

FORT SCOTT, *November 13, 1868.*

HON. SPENCER SMITH, St. Louis, Mo.

DEAR SIR:—Your favor of the fourth instant is at hand, and contents noted. In reply, would say, that I have resided at this post since 1843; before the Texas cattle became a trade or traffic. At the Missouri river points north of Fort Scott, when this trade opened, our cattle were all very healthy; but we soon found a change in the health of our cattle. This trade lasted several years, say up to the commencement of the war. Then, all trade seemed to

close in Texas cattle. This trade ceased until the war was closed. This trade again opened and our cattle became again unhealthy, at this time, if not before.

Our people became excited against this trade. Our people, wherever Texas cattle passed, lost their cattle. The excitement was such, it went into the legislature of Kansas, and laws were passed justifying the acts of the people in stampeding and driving the cattle back over the line or road they had come into the settlements. During all these number of years, before and since the war, the disease that Texas cattle communicated to our cattle, many hundreds and thousands of our stock have died. Difference of opinion, all this time, was among our people, and is to this day ; but I have dealt in cattle, some, all this time, and have lost a good number by this disease, as I then and now believe. I watched the cattle we owned, along the road where the Texas cattle were driven, and those of us who had cattle feeding on these highways, universally lost a portion or all those cattle. One fall, I had upwards of 100 head of beef cattle, designed for the St. Louis market. These cattle were on the range, each side of the road these Texas cattle were drove. I did not disturb my cattle, and let them run. The disease was bad among our cattle that season. I lost quite a number of them from the disease they leave on the grass, from the saliva from their mouths ; also when the waters are stagnant or not running. Many experiments have been resorted to, but the most of them failed. On one occasion, we sawed off the horns of some oxen that were very bad off, and matter rushed from the horns after they were sawed off ; but very few have ever been saved.

Our cattle are tolerably healthy now ; yet, there is some little disease here, and these Texas cattle are occasionally run through our country by night. The laws of Missouri and Kansas are now pretty severe. We are not much troubled. The disease is worse, I think, in dry weather. Much more could be said, and that against Texas cattle, for I have watched it from its commencement.

Very respectfully, yours,

H. T. WILSON.

With more time, I could have accumulated a large amount of evidence (it must be remembered that daily mails are not yet established in the remote districts of Missouri and Kansas) to the same effect, viz : that the passage of a drove of Texas cattle, through a district of country during the summer months, is sufficient to spread disease among our cattle which pass over the same ground within several days after the Texas cattle. The propagation of the disease does not require contact, or inhabiting the same pasture or enclosure for any length of time ! but the disease breaks out among our native cattle who have the misfortune

to pass over the same ground, or drink from the same ponds used by Texas cattle. I know that it has been stated that "continuous contact, or grazing after them (Texas cattle) is necessary to produce the disease," but I think this can be abundantly disproved, even by members of this convention, from their own personal experience.

How the disease is communicated from these droves to our cattle, I leave to the imaginations of the theory makers.

We have not yet sufficient facts in the case to justify a certain conclusion. We must go on collecting facts for some time yet, and perhaps we shall finally be able to ascertain the true seat of the disease, and the nature of the infection.

To many, it seems preposterous to suppose that healthy Texas cattle can impart a disease to ours which they have not themselves, and that our cattle do not become the medium of conveying this disease to others. It is certainly somewhat strange, but that it is nevertheless possible, I am able to show, through the aid of Dr. Weslizenus, of St. Louis, who has kindly furnished me the following extracts from a German work on pathology—"Pathological Fragments, by Dr. C. W. Stark, Weimar, 1824."

In the ninth chapter, he speaks of infection from healthy persons, and mentions the following facts, for the correctness of which he says he can answer, because he has seen part of them himself, and others have been communicated to him from the highest official authorities of the states concerned.

First. In the year 1812, thirteen Russian prisoners of war, in whom no trace of disease could be found, marched through Prussia and Siberia, and left everywhere at their stopping a malignant, contagious, typhus fever, without being, themselves, even later, affected by it.

Second. From ten to fifteen Russians themselves stopped over night, in Zullichal, in a very small room, crowded together with the landlord and his family. The latter immediately afterwards were attacked by a very malignant typhus fever, of which they all died, and which also spread to the neighboring houses. These Russians were traced for many miles, and some weeks after were found perfectly healthy.

Third. Bands of Austrian prisoners, consisting mostly of Poles and Hungarians, left in Franconia, in 1812, thirteen malignant, contagious diseases behind them.

Fourth. In Greifswald, prisoners of war, consisting of different nations, Germans, Italians, Danes and Frenchmen, confined to a narrow room, badly fed and very filthy, gave the contagious typhus fever to nearly all the inhabitants with whom they came in contact, although they, themselves, did not suffer from the disease.

Fifth. When the remnants of the French army—returning from Russia, bringing with them crowds of sick—marched through Berlin, no disease was spread. But when, in 1813, the corps of Wellzenstein, consisting mostly of Cossacks, Tschergises and Baschkirs, came to Berlin, an epidemic typhus fever broke out.

Sixth. A similar phenomenon was observed the same year in cattle. Drovers of Podelian cattle, which, after strict examination and quarantine, had been permitted to enter the Prussian states as sound cattle, spread in their entire march through Prussia, Denmark and Mecklenburg, up to the Baltic, the *Vishseuche* (typhus fever of cattle), although not a single animal of the whole drove sickened on the way, but arrived in perfect health in Stratsund, and were slaughtered there as healthy cattle.

In similar manner, the typhus of cattle was created in 1814 and 1815, by the numerous droves of cattle following the Austrian armies, and belonging to foreign races.

This singular mode of creating and transferring disease from healthy individuals, occurs mostly when the heterogenous masses of different nations or races come in contact, and might be called nationalizing disease, a process analogous to acclimatization.

Here, are evidently the same phenomena which exist in Texas fever, and which were observed long before this disease was known; unless it be that the typhus here spoken of was the same. As to the various opinions about ticks, disease in the hoof, contagion in the breath, etc., they may be all true or false. We have not sufficient evidence to substantiate or disprove them. But that our cattle die from some disease emanating from the droves of Texas cattle—which are either driven here, or transported in cars—is undoubtedly true; and that this happens only during the summer months is also true.

A general law, therefore, which would operate alike in all the states, and be just to all parties concerned, seems absolutely demanded.

I beg pardon, Mr. President and gentlemen of the convention, for detaining you so long. I should not have done so had I not felt this matter to be one in which you are all as much interested as I am myself.

MR. GOULD, of New York—Mr. President, I am instructed by the committee appointed to draft a series of propositions, which may be enacted into laws, to report that it met at a very early hour this morning; has been in continuous session ever since, and is satisfied that it is entirely impossible to comply with the strict letter of the order of the convention.

I have the honor to report that it has arrived at certain general principles and conclusions, which it has directed sub-committees to report and present to it at once.

I am further directed to state, that it will, in all probability, be able to report this afternoon.

The report was accepted.

DR. JOHNS, of Illinois—Mr. President, I offer the following resolution—

WHEREAS, The disease under consideration is known by the various names of Spanish Fever, Texas Fever, Cattle Plague, Black Water of Texas, etc.; and,

WHEREAS, We believe that a name characteristic of the disease is desirable; therefore,

Resolved, That a committee be appointed, consisting of Snow, of Rhode Island; Thayer, of Massachusetts; McCall, of Maryland; Mills, of Michigan, and Clendennin, of Ohio, who shall report to this convention a name that shall become uniform, and by which it will be recognized hereafter by the members of this convention.

Leave was granted to add the names of Messrs. Morris, Corson and Morse to the above. The resolution then prevailed.

DR. CLENDENNIS, of Ohio—Mr. President, I should like to introduce a resolution somewhat to this effect: That this convention do directly, or through the officials of the several states here represented, recommend to congress the appointment of a commission, which shall be composed of such persons as shall be thought proper, for the purpose of fully investigating the causes, symptoms, and everything relating to this disease; with power to go to Texas and the Indian Nation, and whose duty it shall be to make a thorough investigation of the whole subject, and report to congress.

THE PRESIDENT—You will please reduce the resolution to writing, sir.

DR. CLENDENNIN—I will amend the suggestion that I have just made by moving that a committee of three or five, or as many as may be thought proper, be appointed to draw a resolution asking congress to take such action as it may deem proper.

GEN. PATRICK, of New York—One word, Mr. President, before that is put. I would suggest whether we could not, without the machinery of a special commission and appropriation by congress, reach the same result as that sought to be accomplished by the gentleman.

You are all aware, undoubtedly, that whenever an appropriation is made by congress for any especial purpose, there is always a grab for the spoils; and no appropriation that ever I heard of remained unexhausted.

Again, the general-in-chief of the army, or the secretary of war—

DR. CLENDENNIN—I said nothing in reference to the army, sir, at all.

GEN. PATRICK—I am perfectly well aware of that, sir; and therefore, I am about to speak of it now.

What I was about to say, Mr. President, is this: That the machinery is already on hand; and so to speak, owned by the government. The army contains, at every post, gentlemen well versed in all the sciences in which a commission to investigate this matter should be versed. If they do not happen to be stationed at the exact point where such a commission would pursue its labors, they could be very easily ordered there. All these things are under the control of the war department; and it does seem to me that this is the proper department for us to look to, in order that this subject may be thoroughly investigated, and a report presented at the earliest possible day.

DR. MORSE, of Missouri—As an amendment to the resolution, Mr. President, I would strike out the word “congress” and insert “war department.”

THE PRESIDENT—Reduce your amendment to writing, sir.

MR. HAMILTON, of Pennsylvania—Mr. President, I move to strike out the word “war department” and insert “commissioner of agriculture.”

DR. CLENDENNIN, of Ohio—Mr. President, I merely desired, in offering that resolution, that a committee might be appointed who should petition congress to take some action in reference to this disease.

With reference to the matter being referred to the war department, I merely wish to state that I have some experience regarding frontier posts, from the officers at which the proposed commission might be organized. The highest ranking officer in command is perhaps a captain, but in many cases a lieutenant—the only medical officer at such a post being an assistant surgeon of some two or three years standing, who left college and went directly into the army, without then having had or having gained since, any experience worth mentioning, in conjunction with that which should be possessed by those to whom the consideration of this matter should be referred. It is but fair to presume that the other officers stationed at these posts are of about the same class. The value of the commission will depend upon the talent of which it is composed. I do not mean to say that there are not very intelligent and highly educated gentlemen in the army—every body knows that there are.

Dr. MORSE, of Missouri—Mr. President, I believe, for one, that if this matter were confided to the war department, it would detail persons competent for the work. Here is another point that should be considered as a reason why the war department should have charge of this. A great deal of that Texan country is not by any means in a settled condition, and it strikes me that it would be rather difficult to find two or three men to go down there, unprotected as they would be to a very great extent; whereas, if the army takes the matter in hand it is already equipped for any emergency.

DR. CLENDENNIN, of Ohio—It seems to me, Mr. President, that if congress takes any action in the matter, it will appoint such persons as will be entirely competent. It seems to me that the people of Texas (in which state, as has already been remarked, harmony has not yet been quite restored) would gladly furnish to such a commission all the information in their power, and, of course, such commission would command and be able to obtain the protection of the military posts in that state. It seems to me perfectly proper that this matter should be presented to congress, and that it should designate who, or what department should act in the premises.

THE PRESIDENT—The question is on the amendment of the gentleman from Missouri (Dr. Morse), striking out “congress” and inserting “war department.” The amendment prevailed.

MR. STOCKDALE, of Ohio—I hope, Mr. President, that the house will vote down the resolution. I believe we can get as good a report from this convention as from congress, as we have all the testimony here. I hope that the convention will, itself, appoint a committee to report in regard to all the matters within the scope of the resolution.

PROF. CHADBOURNE, of Wisconsin—I hope, Mr. President, that the resolution will not be voted down, for I am satisfied that a long series of observations, by men accustomed and trained to observe, must be first made before any action can be taken regarding this matter, with any degree of certainty. We must first secure the facts, and I do not believe that there are many medical men in our frontier posts, at all competent to secure the particular kind of facts which we must have before we can arrive at any kind of a safe conclusion with reference to this disease.

THE PRESIDENT—The amendment of the gentleman from Missouri (Mr. Smith), striking out “war department” and inserting “commissioner of agriculture,” is now in order.

MR. REYNOLDS, of Illinois—I understand, Mr. President, that the department of agriculture is already doing this very thing—why then should we memorialize the commissioner of agriculture, at all.

DR. MILES, of Michigan—Mr. President, I hope this amendment will not prevail. The circulars sent out by the department of agriculture, signed as they are by irresponsible or interested parties, will not enable us to come to any definite conclusion with regard to this disease. We want to know something accurately, something that can be relied upon, regarding its extent, the precise conditions under which it is developed and the means by which it can be controlled. I voted for the amendment inserting “war department” instead of “congress,” simply for this reason, that I am satisfied it would be almost impossible to get the matter before congress in a shape that would produce any satisfactory result. There are plenty of men in the army fitted to make these investigations, and if they do not happen to be at the posts where these inquiries are to be made, the war department can order them there; or if there are men now at those posts not entirely capable, the war department will assign those who are. Besides, we shall have a report very much sooner, if conducted under its auspices, than we shall be able to obtain if the matter be intrusted

any where else. I am entirely satisfied that we should not get any report from a commission appointed by congress, in less than three or four years, while what we want is something right away.

The sending out of a commission from this body, seems to me cannot be undertaken, simply for the reason that the expenses of such a commission must be paid, and I am not aware of any method by which we can raise the funds in this body.

GEN. PATRICK, of New York—Mr. President, my suggestion, for it was such, regarding the war department, will not militate against a commission finally.

What the gentleman from Ohio (Dr. Clendennin) and the gentleman from Wisconsin (Mr. Chadbourne) have said, is in a great measure true, and especially so since the war and the enlargement of the army.

At the present time many of the junior officers and of the medical staff have been but recently taken from civil life, in consequence of the exigencies of the services, and put forward of necessity. But go you back to those of higher rank—to the scientific corps of the army, to the old officers of the medical department, of the engineer, and topographical corps, and of the ordnance department, and you will not find their superiors in the sciences to which they have devoted themselves. The chief engineer of the army, to whom this matter would naturally be referred, is a man not only associated with all the scientific societies of this country, but whose name is widely known in Europe. He (in former times, at least, it would have been so), in consultation with what is termed the staff corps of the army, selects from the scientific corps those gentlemen who have made special attainment in the specialty of their respective professions. To each of these small commissions gentlemen from civil life are attached, as the botanist, the historiographer, etc.

The special reasons why I wish this matter referred to the war department, have been already partially covered—such as the difficulty of reaching these points, without the aid of the officers and troops of the army. It is true that any one, going out clothed with authority by congress, must, of necessity, be received. But, gentlemen, you are perfectly aware what a difference there would be in the reception of a commission composed of civilians and one composed of those already perfectly at home in these fields, to

whom that information would be most gladly afforded, which the people would be somewhat doubtful about furnishing to others.

A word, now, gentlemen, in regard to this commissioner of agriculture, for I have had some little experience with that gentleman. In regard to the facilities which the war department could place at our disposal, I happen to know a little something, for in times past I have had considerable experience regarding the formation of commissions like that which we now wish to send out.

But to go back a little. We had thought of such a commission as this, and I, as the chairman of our organization, wrote to one of the officers of the subsistence department, as an old associate of the gentleman in question, stating to him what we had already discovered, and suggesting that quietly and without going through any red-tape business, he could give us an order applying through the whole southwest, and such other places as we would be likely to visit, whereby medical officers at the different posts might, if competent, be detailed to accompany us; and, by the way, at many of the posts, were some of the old officers perfectly *au fait* in this business.

I also wrote to an officer, high in rank, in the medical department, saying to him in the same spirit: "I have written," so and so, "and you can work together in carrying out what will be in its results a great contribution to sanitary science generally."

Unfortunately, the first mentioned officer was absent on a tour of inspection through the west, which would consume several months. The subordinate, into whose hands it fell, not knowing much about such business, went, as a matter of course, to the commissioner of agriculture. That functionary responded substantially: "No, sir, no, sir, I have sent out Prof. Gamgee; he knows everything; he will make a report; don't interfere with this thing; I have got it now, and it belongs rightfully to the agricultural bureau."

What was the result? The commissioner of agriculture says it will be January before an appropriation can be made; nobody knows how long before the plates will come out, or what the report will be worth when it does appear—speaking with all respect of Prof. Gamgee.

MR. SMITH, of Missouri—I withdraw the amendment, Mr. President, that I proposed a little while ago, and offer the following as a substitute for the whole resolution, as amended:

Resolved, That this convention appoint a commission of three to investigate the causes and geographical distribution of the so-called Texas cattle fever, and that congress be memorialized to furnish the necessary means and power for carrying on this investigation.

MR. ———, of ——— —Mr. President, I move that this whole matter be laid over for the present.

The motion prevailed.

Whereupon the convention adjourned until 2:30 P. M.

AFTERNOON SESSION.

WEDNESDAY, Dec. 2, 1868.

THE PRESIDENT—The convention will come to order. It seems to be generally understood, gentlemen, that this afternoon we are to hear from Dr. Morris, who has been engaged for the last four or five months, as an officer of the board of health of New York, in most thoroughly investigating certain phases of the Texas cattle fever. Will that gentleman be kind enough to take his stand upon the platform, where he can be distinctly heard by all.

DR. MORRIS, of New York—Mr. President and gentlemen, I rise before you in the humble capacity of a sanitary officer of the metropolitan board of health of the metropolitan district of the state of New York, delegated by that body at the urgent request of the honorable the chairman of the commissioners upon cattle diseases of the state of New York, who have so cordially, kindly and efficiently co-operated with the metropolitan board of health in pursuing the scientific investigations, as directed by its officers, and the control of diseased meats brought into their markets.

Those investigations have not been pursued in any captious spirit, or from any interested motive, but as part of the duty pertaining to a scientific sanitary organization, combined to study, elucidate and apply to great sanitary laws which govern our well being as a nation.

The cattle yards at East Liberty, near Pittsburg, under the control of the Pennsylvania Central Railroad, the chief places where cattle are shipped on the several western roads, and especially the experience at Chicago and at St. Louis, were interrogated immediately after the disease came under observation at New

York. The mayor and the head inspectors at Pittsburg, Dr. John H. Rauch, the sanitary superintendent at Chicago, Dr. Neil, the health officer at Dayton, Ohio, and Prof. Gamgee, at once responded to requests for information, and so did a great number of gentlemen connected with the local government of towns to which the board sent inquiries. Information was sought from nearly two hundred separate sources. The general result of all this inquiry appears to have been simply this: First, the period of incubation of the poison which produces the disease was ascertained, by the same kind of evidence which is now in the hands of all of us, to be a variable period, not less, perhaps, than fifteen days in any of the histories reported, oftenest more than twenty days, and certainly extending to forty days and upwards. This was important information for us in the early part of August, while the disease was regarded as somewhat mysterious. Dr. Rauch, in his letter, dated August 19, stated that sixty-two cows had died of the disease in the fifth ward of Chicago, and that its presence had been recognized there from the first of that month. Dr. Hodges, president of the board of health of St. Louis, communicated important records of the disease, as it had prevailed in former years near St. Louis, and various parts of Missouri. Dr. Neal, health officer of Dayton, Ohio, communicated the result of his observations, from day to day, upon the disease which had infected a herd near that city. F. A. Aitkins, Esq., of Odell, Illinois, gave the history of events which were occurring in his neighborhood. The experience in Warren county, Indiana, and in Summit county, Ohio, was kindly made known to the New York sanitary board. Like the record of each infected herd, and each diseased animal which came under the investigation of this board, all this experience, gathered by correspondence, tended to clear up all doubts as to the dependence of the disease upon a contagious principle which could, in all cases, be traced to the Texas cattle, so far as regards the first group of cases which occurred within the first sixty days after exposure of native cattle to the excrement or the trails of those cattle. The sudden and very brief duration of the obvious symptoms, or very last and fatal stage of the disease, seemed fully confirmed. Not a single person among all of the correspondents, who gave us the result of their observations, seemed able to mention any symptoms that could be discovered before this last stage of sickness is reached.

DR. NEAL, of Dayton, Ohio, writes, under date of August: "Up to the time of receiving your letter in behalf of the metropolitan board of health we had no indication of the disease in our midst, but there being a herd of Texas cattle a few miles from us, in due time we have been doomed to suffer. Between August 15th and 25th, eleven native cattle have died, and several are now sick." Mr. Atkins, of Odell, Illinois, states his conviction "that even the filthy cars of the cattle trains of our railroads would become the carriers of the infection from Texas steers."

Whatever was learned from any part of the country concerning this disease, confirms the opinion that there should be thorough disinfection of cattle yards and cattle cars and trains. Hence the sanitary officers of the state of New York did not act blindly when they advised such effectual disinfection by carbolic acid. Whatever the general government may have acquired in its correspondence respecting these diseases, the sanitary officers in New York have deemed it a duty to maintain an independent correspondence, and obtain all the information in their power, and especially to ascertain, if possible, all the facts concerned in the propagation and prevention of the disease.

We begin to fear that there is evidence that the poison from the south may, under favoring circumstances, become naturalized, even in the state of New York and many other states, where large numbers of cattle are accumulated. But it should be mentioned that up to this date the registrar of the metropolitan board of health states that there has been nothing received in the correspondence of the board with the sanitary authorities in other states, which throws much light upon the subject, for the observers who have communicated information upon this point all testify that they have not witnessed the repropagation by the northern cattle; but that it must be remarked that few observers have been so situated that they could study the disease, except in connection with the first group of animals that became infected by it from the excrement of the Texas cattle. The registrar says that the evidence upon this subject must be regarded, thus far, simply in the light of purely negative evidence, and that this vexed question is by no means settled until exact and searching observation shall have been carefully made wherever the disease has been carried.

BRIEF SUMMARY OF THE WORK ACCOMPLISHED BY THE METROPOLITAN
BOARD OF HEALTH, ON THE CATTLE DISEASE.

The markets of the metropolitan district of New York demand about 1200 to 1500 head of beef cattle every day. Hence it is plain that its sanitary authorities could not, without culpable negligence, neglect to notice, and, if possible, to prevent the introduction and use of diseased animals for food. When the fact was announced that a destructive disease was spreading among the herds in the very districts from which the choicest meats were supplied to the New York markets; and when it became known, one of the most trustworthy sources of this supply, viz: Mr. Alexander's herds—had already sent an invoice of diseased cattle to this market, the metropolitan sanitary officers lost no time in deciding upon the necessary inquiries and the police regulations which seemed necessary to ascertain the nature and results of this disease, so far as its influence upon human health was concerned.

These duties, though purely sanitary, had to be classified under different heads, as follows:

1st. Inspection of the cattle, whether dead or alive. 2d. Inquiries as to whence they came, and as to what regions were being visited by the disease. 3d. A scientific investigation into the essential nature of the pathology of the disease.

The very first group of diseased cattle which sanitary officers examined, viz: the dying remnant of Mr. Alexander's herd, which reached Communipaw on Friday morning, the 7th day of August last, and that left Homer, Illinois, about one week previous to that date, plainly enough settled the question that this disease is a pestilence that needs all of the sanitary care and all of the scientific investigation it can receive. Now these duties were not likely to be well performed, or even to be performed at all, in any good season, if left to the slow movement of state and national authorities alone. Investigations had to be commenced at once, and were commenced.

The department of inspector speedily grew into an important work of police control, and as soon as the New York state commissioners, Messrs. Patrick, Gould and Allen, had learned the extent of the malady among the cattle, viz: in the third week in August, they nobly came to the aid of the metropolitan health authorities, and added the power of the state to that local power

which the sanitary officers had exercised for the preceding ten days.

The first diseased cattle were discovered on the morning of August 9th, in the drove yards at Communipaw, New Jersey. By the use of the thermometer, it was immediately discovered to be a pestilential disease, for the temperature of some of the cattle that had began to manifest the symptoms of it, was found to be above 107° Fahrenheit, a temperature which pertains only to the operation of pestilential poisons in the animal system. Let it here be remarked that an intelligent health officer, whose business it is to examine and investigate diseases, never goes about such duties without a thermometer in his pocket. It should be understood that medical officers fear diseased food, not because it produces, ordinarily, its own like in human beings who eat it, but because it tends to produce obstinate and fatal diarrhœas, subtle and fatal changes in the human blood. In short, because it is filthy and unhealthful to eat diseased and putrid articles of food. It should be remembered just here, that there was, during the last week of July and first ten days of August, an alarming and dreadful increase in the mortality from diarrhœal disorders and sudden deaths, which demanded searching sanitary inquiry.

The inspection and police control of all meat cattle brought within the limits of the metropolitan district of New York (which embraces five counties) having been provided for by appointment of myself, a sanitary inspector of the metropolitan board of health, as assistant commissioner for the state, this branch of work was so organized, and authority so concentrated, that it at once prevented panic, fault-finding, and all the chief sources of danger from the arrival of cattle.

PLANS OF ORGANIZATION.

All cattle arriving within the city limits were required to enter quarantine yards for inspection, and were not allowed to leave without a permit, stating that such inspection had been made, and signed by the assistant commissioner.

SCIENTIFIC AND SANITARY INVESTIGATIONS.

Careful post-mortem examinations at the slaughtering of diseased animals were commenced August 9th, in the herd of one hundred and forty-one which Mr. J. F. Alexander's agent, Mr. Fitch, at

Communipaw, ordered to be sacrificed (and here let me say, by the way, that this sacrifice was, under the circumstances, one of those noble acts which redeem manhood from the degeneration of traffic in these days of selfishness). Some thirty carcasses were examined the first day, and three were subjected to searching analytical inspection. The *blood*, the *bile*, the *liver*, the *spleen*, the *flesh*, and the intestinal contents, were also subjected to the most skillful microscopical examination. Even the tick was examined, unworthy as he was of such attention, for we now know that he was an old enemy, familiar to the eye of herdsmen in many countries. The chief result reached in these microscopical examinations was summed up as follows. In a note from Prof. R. Cresson Stiles, deputy registrar of the metropolitan board of health, to the superintendent of the scientific work, Dr. Elisha Harris, on the next day, says: "Concerning the *blood*, I found it decomposed so that the specimen I secured (poured from the bottle containing the clots) consisted of a bloody serum. *Not a single red blood disk could be detected*. The red blood disks had parted with their coloring matter, and the serum was of a dark mahogany color. This evidence of disorganization of the blood is a *most important fact*, as indicating the nature of the disorder." Ordinary observation by the unaided eye showed, of course, precisely the changes which all have seen who have examined the disease in that way—the sloughs in the read, or rennet, or fourth stomach, the darkened mahogany color of the soft muscles, the greenish ochre yellow of the fat, the thick, flaky, almost black, condition of the bile, and its enormous excess in quantity in the gall bladder, the bloody urine, the enlarged and altered appearance of the liver, and the still greater enlargement of the spleen, the bloody straining of the rectum, the jaundiced eye of the diseased creature. But to the critical eye of pathologists and trained medical officers of the board of health, there were no changes discovered in the tissues and organs of these diseased animals that were not plainly attributable to the changes that had occurred in the blood, unless, indeed, it might be, as it possibly was, true, that the liver, the bile, the spleen and the flowing blood, together, were in some way materially responsible for this destruction of animal life. Here, then, commenced the study which has continued, uninterruptedly, from the 9th of August until late in November.

There were three objects to be obtained by this study, in which not the medical profession alone, but all interested in healthy food supply and in profitable cattle raising, herding, grazing, transportation and marketing, may have an equal interest, at least in the two objects we will here first mention. The first object was to ascertain if the disease could be propagated to other animals. The second object was to ascertain by what particular agent or thing, in itself considered, this disease is communicated from one animal to another. Thirdly, to ascertain the precise changes which the disease produces in the fluids and tissues of the animal, and especially to study these changes in such a manner as to ascertain some of the important facts regarding the spreading of pestilential diseases of both men and the lower animals. Under the first head, only a few experiments were undertaken. Mice, rabbits and dogs were fed with portions of the liver, or of the bile, in small quantities, but only in the rabbits was definite evidence of deadly effects produced. Out of a large number of rabbits fed, all, excepting one, died with symptoms so closely resembling the cattle disease as to leave but little doubt that they were poisoned by it, and this, too, in a very definite and specific manner. This point will be noticed when we come to speak of the parasite which is a constant attendant upon the disease in the blood and bile of the diseased animals. Under the second head for study, the microscope was put to the test to discover if the intestinal contents of the diseased cattle contained anything that might account for the spreading of the disease. But this was so much like looking for a needle in a haystack, that it became expedient to make the search principally in the contents of the gall bladder, for whatever is contained therein is sure to be poured out into the intestines. This search has been amply rewarded, for on the 13th day of August, in examining the bile of a number of badly diseased animals that were being examined in our presence, near the Hackensack river, the microscope, in the skillful hands of Dr. Stiles, revealed the presence of fungus spores, which, in the language of the scientific men who give names to these things, would be called *Cryptococci*, but in common phraseology may be simply said to resemble the yeast fungus.

We wish to be distinctly understood here, that we do not suppose it was yeast fungus—indeed it was not; but it has at last been ascertained to be the spore germs of a minute parasite called

the *pitiletia caries*, and which has its natural home about the husks and joints of certain grasses and herbage growing in warm latitudes. But in the fluids of the living animal, within the cavities of its organs of digestion, these microscopic growths do not attain that full development which they bore in the outside world; but, as the microscopists and vegetable physiologists tell us, regarding the minute organisms of the vegetable creation, the ready method which these spores of minute parasites adopt in their re-propagation or increase, when not growing upon their natural soil or elements, is simply to multiply as cells, by growing and breaking up or dividing with enormous rapidity, using whatever elements they float in for sustaining this increase of theirs. And this is the way these little fungus spores grow in the blood and the bile of the diseased animals. We should here mention that the spores were found abundant in the blood, as well as in the bile, of every diseased animal that has been slaughtered, or found dead of this disease, within the metropolitan district. It should be further stated that these spores were found abundantly in the blood freshly drawn from the cervical vein of the sick animal when alive, and that, although found in every drop of bile immediately after slaughtering, the same specimen of bile would present a vastly increased quantity of these little fungus growths after exposure for a day or two in bottles, or in the open air. Of course it was very desirable to know to what class of microscopic parasites which grow in the open air, and upon green herbage, these spores or seeds belong. In other words, these spores must be planted, to see what kind of plants they would produce. They were planted in every kind of way, in every kind of soil: as the fresh-cut slice of an apple, the inside rind of an orange, the clean-washed, rancous surface of an intestine of a freshly killed healthy animal; they were planted in a mixture of sugar and of gum, in water, upon hard caked bread, upon clean glass, etc., etc.; and upon favorable soil they grew to perfection, which is illustrated upon sketches here presented. They bore seed—that is, spores—which were precisely like the seed or spores originally planted. Thus, in various ways, by nice experimentation, there has been a very satisfactory identification and discovery of *the name and nature* of the microscopic parasite, to which these still more minute and microscopic spores or seed belong.

So much for the revelations of the microscope. This field of

study was deliberately surveyed, and these inquiries planned: *First*, with the design of discovering whatever might be discovered concerning the propagation of this minute organism; and *secondly*, it was hoped that the relations of this spore to some fungus growth in the vegetable world might be ascertained, with which the Texas cattle were concerned. A far greater degree of success than was expected seems to have attended their line of inquiry. The medical officers who planned and directed it were sufficiently masters of the present state of scientific knowledge on these and kindred subjects to grasp the whole problem, and make no mistakes. Indeed, it has come to pass, since the last outbreak of cholera in its march across the continent, in 1865, 1866 and 1867, that this kind of exact inquiry has come to be a part of the duty of scientific medical officers. No one need be told that if this very parasite, which, in its lowest and most rapid stages of development, has now been found in the blood and bile of Illinois cattle that took the disease by feeding over the ground where the Texas cattle dropped their excrement, has now, indeed, been almost absolutely demonstrated to be the seed which is borne in the spore-vessels of a parasite, which grows upon grasses and herbage on which the Texas herds graze when *en route* from the bottom lands of the south to the prairies of Illinois and Indiana. We have an equally good demonstration that the food upon which the Texas cattle feed is at least partly responsible for the spread of the deadly infection. Yet it is due to Dr. Harris, as the author of this generalization, to say that he believes that the parasite may be guilty of only half the evil; for in cattle mercifully treated, and properly fed, it is impossible that the blood and fluids would become over-run with this poison. Chemistry, the hand-maid of modern physiology, has been required to interpret such changes as it could take cognizance of, in the blood, bile, liver and spleen of the diseased animals. Over fifty very careful analyses have been made by Prof. C. F. Chandler, chemist to the metropolitan board of health, and superintendent of school mines of Columbia college. The general result of all this labor in the laboratory may be stated as follows: The blood becomes watery, (that is, loses the normal amount of its solid constituents, and loses them very rapidly in the last or obvious stages of the disease;) 2nd, in animals killed when convalescing from the disease, the chemist found the blood excessively watery—the blood cor-

puscles being in a proportion less than one-half the normal standard, and the albuminous portion of the blood very much diminished. I am permitted by the board of health to quote from the record of Professor Chandler's analysis the following illustrative result:

	Water	Total solids.	Fibrin.	Red corpuscle.	Albumen.	Salts.
No. 1—Sick ox, slaughtered in the last stage of the disease.....	888.9	111.1	5.6	None.	89.5	3.1
No. 2—Sick ox, slaughtered in the very last stage of the disease—a typical case of the disease, 60 days from incubation ..	876.9	123.1	7.8	13.6	60.8	14.1
No. 3—Ox killed on the eighth day of convalescence—one of Mr. Alexander's herd, from Homer, Illinois	854.	134.1	10.9	41.6	68.	5.6

Chemistry and the microscope, also, revealed the fact that the liver in the diseased animal is undergoing what is termed fatty degeneration. The extent of this change varies considerably in different animals, but it is a very invariable and constant change. The microscope shows that it consists simply in the deposit of fat in the minute cells of the liver, precisely as occurs when certain poisons are fed to animals.

The bile is secreted in excessive quantity, and is proved by very nice experiments to be so poisonous that if a very small quantity of it enters into circulation of the blood, that the blood corpuscles would be quickly destroyed by it; and this proves to be the fact. The greenish and dark *ochry color* of the fat and other light tissues, and the mahogany color of the muscles is found to be due to this admixture of bile and the breaking down of the red corpuscles.

This is proved in many ways, but in none so beautifully as in one of the results which is here shown by a microscopic view of crystals of harnatoidine, which can only be produced by the destruction of the red corpuscles in particular ways. This result of blood destruction is found in various tissues of the body, but nowhere so abundantly as in the liver, the spleen and the bile. Perhaps these might be considered as experiments of science too

nice to be useful, but, far from this, they are among the most definite, accurate and trustworthy guides to the treatment which the whole subject of this inquiry upon the cattle disease should receive.

To any person who will carefully look into this subject from the standpoint we have here indicated as having been occupied by the medical officers of the metropolitan board of health, and which, let it be said to the honor of the non-medical but most enlightened gentlemen who constitute the cattle commissioners of the State of New York, are heartily appreciated by them, it will plainly appear that whatever knowledge is required in this broad and fruitful field of scientific researches concerning this contagious but most anomalous disease, will contribute directly and greatly to the welfare of mankind, by adding knowledge in a field where knowledge is most difficult to be obtained, concerning the mysteries of pestilences and contagions which afflict the human family.

THE PRESERVATION OF COLORED SKETCHES TO ILLUSTRATE THE MOR-
BID ANATOMY OF THIS DISEASE.

After viewing the first dissections of diseased cattle, on the 9th of August the registrar of the board of health of the metropolitan district, who had direction of this investigation, employed Mr. Kohlen, a skillful artist, whose life has been devoted to painting automatic sketches from nature, to take drawings at the time and place of slaughter of the diseased animals. Nearly one hundred such illustrations have been taken; and of these, upwards of fifty are being chromo-lithographed, and will be soon in the hands of all who take an interest in studying this subject. They will illustrate the report of the Metropolitan Board of Health, and the special report which the New York Cattle Plague Commissioners are preparing, as well as the New York State Agricultural Society's report, which will embody a special contribution for the New York state commissioners. In conclusion, it should be said that all this investigation in New York has been pursued simply in the ordinary course of the administration of the new sanitary government. Then no one man claims any distinction or honor in it; and whatever contributions the medical officers of that board are now about to make to a practical and scientific knowledge of this disease, will be made without any pretention.

PROF. CHADBOURNE, of Wisconsin—I would like, Mr. President, to ask the gentleman one question: if he understands

that the spores which are produced by this plant, when growing in the air, in orange-peel, apple, etc., are like the cells that propagate by subdivision in the blood and in the bile of the animal?

DR. MORRIS—They take a different form of development in the open air, sir. In the blood and bile, they simply multiply as spores, by division, never progressing any further.

PROF. CHADBOURNE—You consider them as true spores that multiply in the blood and bile.

DR. MORRIS—Yes, sir; the spore seed never progressing any further in development in that condition; but when planted in the air at certain temperatures, they develop into the plant from which they originally came, or into those forms of plants.

MR. GOULD, of New York—I would like to ask you, sir, if these plants, thus grown in the open air, do not develop spores, while growing, which are identical with those found in the blood.

DR. MORRIS—They do, sir, as will be seen by the plates.

THE PRESIDENT—I should like to hear (and I know that it is the desire of the convention) from Dr. Rauch, of the Chicago Board of Health.

DR. RAUCH—Mr. President and gentlemen, I will not occupy your attention for a great length of time, but give, in as concise a manner as possible, the action and observations of the Board of Health of Chicago, and, as far as I can, corroborate the statements made by Mr. Gould and Dr. Morris with regard to the microscopical investigations into the nature and character of this disease by the Metropolitan Board of Health of New York, as substantiated by those carried on by the Board of Health of Chicago; and also, for the purpose of making their history of this plague as complete as possible, I will call your attention to facts not heretofore mentioned.

The first case at the Union Stock Yards which terminated fatally, occurred July 25th, soon after the arrival of the train that brought the animal there. Two days after, two dead steers were found in a train that arrived from the infected district (Tolona, in central Illinois), with several animals suffering from the disease. The next day, another train arrived with diseased steers in it. This train was not permitted to remain. On July 29th, a cow died belonging to a citizen of the fifth ward. In the meantime, a commission was sent to Tolona, Cairo and other places where the disease prevailed, by the packer's association. This commis-

sion returned to Chicago August 4th, and it was supposed that owing to the opposition of the people living along the line of the Illinois Central railroad, no more Texas cattle would be sent to Chicago, and that we need have no fears about the disease. This was before much was known about its spread and character. Hearing that there were cases of the Texas fever at the Union Stock Yards, I directed the health officer, Mr. Burnam, to visit the place. This he did August 2d, and reported no diseased animals. On the 3d inst., another cow died near the stock yards. I then directed the sanitary inspector of that ward, Dr. Mannheimer, to investigate the nature of this disease, and at the same time, instructed the health officer and sanitary policemen of the ward to assist Dr. Mannheimer, in every way, in obtaining information.

I visited the stock yards; and at the meeting of the board, August 11th, I called attention to the fact that cows were dying in the neighborhood of the stock yards, and also, to the action already taken; when further investigation was ordered, and such steps taken to prevent the spread of the disease, and at the same time to prevent the introduction of the meat of diseased animals into the market. I had, also, directed that every facility should be given, and all assistance rendered to Prof. Gamgee, who was investigating this disease for the agricultural bureau at Washington.

The number of deaths increased daily until the 20th of August, particularly in the fifth ward, when they began to diminish. In order that you may understand the history of this plague, I will state that the fifth ward comprises a large territory, the greater portion of which is unoccupied and in its primitive state, in the extreme south-western portion of the city, adjoining the Union stock yards, and where, for the purpose of economy, herds of Texas cattle were grazed at intervals while awaiting sale, from the month of May until the action of the board prevented it, in August. These animals were also grazed upon the prairie, east, south, and west of the stock yards. No herds were, at any time, permitted to graze east of the Pittsburgh and Fort Wayne railroad, for purposes of convenience, and very fortunately for the citizens of the southern division of the city, as undoubtedly the mortality would have been much greater. On this ground, the cows belonging to the fifth ward grazed, and where the Texas

fever prevailed most, and where the greatest mortality occurred. A large number of cows grazed east of the Pittsburgh and Fort Wayne railroad, but none of these were affected, with the exception of a few, which were in the habit of frequenting a spot below the city limits, on the line of the Illinois Central, and Michigan Central railroad, connecting with the stock yards, where the cattle cars were cleaned. These cows belong to citizens of the fourth ward. Other cases occurred near Calumet, Junction, Summit, Lyons, and south and west of the stock yards, where herds of Texas cattle had been driven, or grazed, or where infected native cattle had been sent from the stock yards. One case occurred in the seventh ward, of a cow, that had been purchased several days before from a farmer living near Brighton, but which, at the time of purchase, showed no signs of the disease. As far as we have been able to learn, 147 milch cows, one heifer and four steers belonging to citizens of the fifth ward died between July 29th and October 10 h. At the stock yards thirteen steers died; in the fourth ward (the extreme southern ward of the city, and east of the stock yards) ten; outside of the city limits and near the stock yards, fifty-three; and in other parts of Cook county as far as heard from, ninety-five. Of the animals condemned and killed at the slaughter houses, there were seventy-eight. In these the disease was so well marked that it was unmistakable, while a great many were found in the incipient, and still more in the convalescent stages, so that the board did not feel warranted in condemning the animals. This was particularly the case with regard to the Texas cattle. Six of these were found suffering with the acute symptoms, so well marked, that they were condemned; making a total of 401 animals that died of this disease, and were slaughtered within the limits of Cook county.

Much difficulty was experienced, at the outset, in obtaining reliable information, owing to diversity of opinion and conflicting interests. (We literally knew nothing about it.) In fact, so much was this the case, that it was soon discovered that it was necessary to exclude all cattle coming from infected districts, whether native or Texas, from the stock yards; to quarantine all Texas and suspected native cattle that were there; to prevent the herding of Texas cattle in the vicinity; and in order to protect other points, to prevent the departure from the stock yards of Texas and other animals with regard to whose condition any doubt was entertained,

as in the early stages of the disease, it was found impossible to tell by external appearances whether the cattle were affected or not. An inspector was appointed at the Union stock yards, and no animals were permitted to be removed without his certificate, either for the home or distant market. It was soon found that even these precautions were not sufficient to keep the meat of diseased animals out of the market. Inspectors were placed at all the slaughter houses, and the internal organs, particularly the spleen, liver and bladder of all cattle slaughtered were examined; and at the suggestion of Prof. Gamgee, the spleens were weighed, as enlargement of this organ was always present in this disease, and it was supposed to be the best way of diagnosing it. In a few days the livers were ordered to be weighed and a record in both instances kept; and for the purpose of learning as much as possible with regard to the history of all animals received, the inspector at the stock yards furnished a daily report from whence they came, their condition, etc., which facts were also embraced in his certificate, which was taken by the parties purchasing animals to be slaughtered, and the number compared with those brought to the slaughter house by the inspector there, so that none were taken there without undergoing inspection.

I visited the stock yards daily and the slaughter houses twice a day; and in order to make this inspection as perfect as possible, the spleens, and frequently the livers of all the animals slaughtered, were retained for my inspection and comparison with the number in the certificate. Reports were also required, from the wholesale dealers in meat throughout the city, of the number and from whom the carcasses of beef came that they sold, so that, in this way, all the animals brought to Chicago were known, and in what manner they were disposed of.

The stock yard and railroad authorities heartily co-operated, and in a short time the stock men and the butchers acquiesced, so that very soon confidence was restored, and the trade was improved. Whenever an animal was found that showed positive or suspected signs of disease, my attention was called to it, in my visits to the slaughter houses, and if the suspicion of the inspector was confirmed, the carcass was consigned to the rendering tank. But little opposition was made by the owners; and as a general rule they cheerfully acquiesced in the decision. Such was the excitement with regard to diseased beef that the consumption rapidly

fell off, and with it the price, and as a necessary consequence great stagnation of the trade. The efforts of the board soon restored confidence, and with it a more hearty co-operation and acquiescence in its orders by all parties interested. Detectives were also employed, as it was discovered that the carcasses of animals were brought in from the country, that had been suffering from this disease. This was soon broken up, and in a few days the entire beef supply of the city was under the control of the board; and I have yet to learn of a case of the Texas fever that occurred elsewhere from cattle that were shipped from the stock yards, after this system of inspection was inaugurated.

So far no notice in the description of the symptoms of this disease has been taken of the chill by which it is ushered in, nor of the difficulty of urination. With regard to the first symptom, I would state that three cases fell under my observation in which this was well marked, and I have no doubt but that such was the case in nearly all of the animals that suffered. In studying diseases of animals, much difficulty is experienced from the fact of their not being constantly under observation, and nothing can be learned but by physical examination. Generally speaking the first evidence that the owners of cows noticed, was a diminution of the secretion of the milk. There was not that aggravation of the symptoms in the animals, observed at Chicago, which was seen at New York. This was, no doubt, owing to the hardships and exposure incident to the mode of their transportation; and from what I have seen myself, both at Chicago and New York, I am satisfied that in many cases if the animals had been allowed to remain on the pastures undisturbed, they would not have died.

Nearly all the cattle I saw were free from ticks, and none could be found, special care being taken from the outset to ascertain whether these insects had any agency in causing this disease. As a general rule, none were found, and not a trace of them could be found in the stomach of animals that died of this disease, or in any that were killed. Dr. Mannheimer devoted much time to the investigation of this question, and such was also the result of the observation of others, among them Prof. Gamgee, and Mr. Emery of the *Prairie Farmer*.

From August 3d, to October 10th, Dr. Mannheimer and myself made 143 post-mortem examinations of cattle which had died, or were killed while suffering with the Texas fever. In nearly all the

same pathological conditions were found which have already been so minutely described and observed by the New York board, with the exception that they were not so aggravated. The sloughs and ulcers in the obomassum or true stomach, were not seen, but patches of abrasion with increased vascularity were frequently found. In the small intestines were observed small yellowish spots or points, of which I have heard no mention made. The glands of peyer and brunner were carefully examined, but no ulceration was found in a single case. In only one animal, to which I shall allude hereafter, was the yellowish-ochre looking color of the fat, and the mahogany color of the muscles observed. In fact in nearly all the animals examined, there was no change perceptible to the naked eye in the appearance of the fat and muscles from animals in perfect health. It was soon found, in consequence of the difficulty in detecting the disease in the living animal, unless in very marked cases, and after the removal of the viscera after death, that the only way to make the inspection efficient, and to protect the public health, was to examine the internal organs of all animals slaughtered. In fact I found it utterly impossible, as a general rule, to decide by the appearance of the carcass, after the viscera had been removed, whether it was fit for market or not. This was especially the case in the early stages of the disease. For instance in a herd of thirty-three that were suspected, only four showed marked signs before being slaughtered, with that increase of temperature which was found to be so infallible a test in diagnosing this plague by the New York board ; but upon slaughtering them, I found that the spleen, liver and urine, presented such decided evidences of disease, that I condemned eleven, and was in doubt about five more. The spleens of all that were condemned weighed over four pounds, and bloody urine was found in nine of them. In one of them the spleen weighed eight pounds, but in this case there was no bloody urine. I afterward noticed this fact : that where the enlargement of the spleen was greatest, no bloody urine was found. These cattle were slaughtered two days after the inspection of the viscera at the slaughter-houses was commenced, and I must confess to a keen appreciation of the responsibility resting upon me, in thus imposing so heavy a loss upon the owners, and at the same time discharge my duty in protecting the public health. In the conclusion

arrived at, all who saw the affected organs, agreed, and the owners cheerfully acquiesced.

In this connection I would state, that the thermometer, although assisting in determining the disease in a suspected animal, was not found in our hands of so much service, while its application to all cases was found impracticable.

Two cases were found where rupture of the spleen had taken place. One of them, examined on September 21st, was particularly noticeable, as about four gallons of bloody serum were found in the cavity of the abdomen, and the bladder was enormously distended, containing nearly three gallons of bloody urine. The spleen weighed ten and a half pounds. At this time the cases that we saw were more aggravated than usual. The liver was generally enlarged, but not always, and the heaviest liver seen weighed twenty-nine pounds, and in all cases examined fatty degeneration was found. Ecchymosed spots were occasionally met with in the heart, both externally and internally. The condition of the rectum so constantly present in the cases examined in New York, was occasionally seen, and the flaky character of the bile was seen in rare instances. In many of the stomachs of the Texas cattle, cicatrices were seen, proving the existence of disease at some period.

With regard to the transmittal of this disease by native to native cattle, I must confess that notwithstanding the weight of the testimony is against it, I am inclined to believe that such can and does take place. I can see no good reason why such should not be the case.

MR. PIPER, of Illinois—Allow me to ask if you have any evidence that would be conclusive on that point, which you can give the convention?

DR. RAUCH—Several instances of this character fell under my observation during the past three months, but the most conclusive evidence I have is, that native cattle were purchased at Chicago in August, and taken to Lebanon county, Pennsylvania, and that a short time after they died, and that other native cattle on the same farm, and neighborhood, died; and that no Texas cattle had been nearer the place where these animals died, than the railroad, while in transit to New York and Philadelphia, which must be at least three miles distant. My attention was called to these cases by a friend, who wished to know of me whether it would be safe

to purchase cattle coming from Chicago, just as I was leaving Lebanon, about five weeks ago. In all other cases that were noticed, the Texas cattle had been near. The assertions that native cattle die of this disease, and do not communicate it to other native cattle; that Texas cattle are perfectly healthy, and still cause a disease that is fatal to native cattle, and that they do not die of this disease, are such anomalies in the history of contagious diseases, that on general principles, I am not disposed to believe it. I must confess that in my opinion there is still much to be learned with regard to this malady. In all cases that came under our observations, where native cattle were not affected, they were stall-fed, and did not graze where Texas or sick native cattle had grazed, which, as far as our experience went, was necessary to transmit this disease.

Almost every imaginable course of treatment was pursued, but it was impossible to tell with what success. At first all the cattle affected died, and it was the general impression that there was not much use in treatment. With this feeling I treated seventeen during the month of September, seven of which recovered. Am not prepared to say that they would not have recovered, had they not been subjected to the course of treatment I put them on. I recollect one case where the animal was bled freely when the first symptom appeared, dying in a very short time after—in fact sooner than any case that came under my observation. I have no doubt but that the free bleeding hastened death, having, on general principles, discountenanced blood-letting before; and the result in this case was strictly in accordance with my views of the nature of this malady.

Carbolic acid, in its different forms, was made use of freely as a disinfectant, particularly at the stock yards, but not as an internal remedy.

THE PRESIDENT—Did the animals that recovered enjoy as perfect health as before they were attacked with the disease?

DR. RAUCH—In some instances they did, convalescing very rapidly, with speedy restoration of the milk in cows.

THE PRESIDENT—They did ultimately arrive at perfect health?

DR. RAUCH—Yes, sir, I saw several of them recently looking very well, and in good health.

DR. TOWNSEND, of Iowa—Just one question, if you please. I believe it is a fact beyond all question, that certain poisonous sub-

stances which affect oxen very injuriously, are almost innocuous in the case of cows secreting largely. Is that true of this special poison?

DR. RAUCH—So far as my own observation goes, it was principally among cows secreting milk, and judging from my own experience and what I have been able to learn from other sources, cows were more apt to suffer than oxen, or at least there seemed to be a greater susceptibility to the influence of this poison.

DR. TOWNSEND—The secreting of milk does not exempt them?

DR. RAUCH—No, sir, not at all.

MR. McMILLAN, of Ohio—I think you stated, sir, that out of seventeen cases, you cured seven?

DR. RAUCH—Yes, sir.

MR. McMILLAN—Will you be kind enough to tell us how you treated them?

DR. RAUCH—When I first saw them, I gave them large quantities of flax-seed tea, with half an ounce of sweet spirits of nitre three times a day. The next day one drachm of sulphate of quinia, dissolved in a fluid drachm of aromatic sulphuric acid, was given, either twice or three times a day, in a pint of water, as I thought was necessary. This treatment was continued until a change for the worse or better was observed. The flax-seed tea was given during the entire time of treatment. I have no doubt that in the early stages of the disease, purgatives that would promote secretion of the bile would be beneficial, but it is exceedingly difficult to pursue a systematic course of treatment, arising mainly from the want of interest taken in the animal by the owner, and the trouble in obtaining correct information with regard to the symptoms, from want of observation. The flax-seed tea and sweet spirits of nitre were given with a view to allay the febrile excitement and promote secretion of urine, which was generally scant and high-colored, even before it became bloody, accompanied by difficulty in voiding. The quinia was given as an antiperiodic and tonic, as in several cases I noticed the disease ushered in with a decided chill, and the fact that the spleen was always enlarged, presenting a feature similar to "ague cake," so common in human beings who had been suffering from the effects of malaria for a long time. The aromatic sulphuric acid was added for the purpose of acting as a solvent of the quinia, a tonic and astringent, and

at the same time to cause the destruction of the spores in the blood, and prevent the lowering of its vitality.

The next question to which your attention is called, is whether or not the Texas cattle suffer from this disease? From all of the sources of information within my reach, and particularly from consultation with those in whom I had reason to have confidence, I was informed that they were "perfectly healthy, and exhibited no traces whatever of this disease," and such was apparently the case. But I had my doubts, as I could not understand how so widespread and fatal a plague could be caused by cattle enjoying perfect health, although I had, up to this time, seen nothing to the contrary. In fact, for a number of days, I was in doubt what course to pursue, owing to the diversity of opinion, prompted more by interest than a desire to arrive at the truth.

We were at first occupied mainly in investigating the disease in the native animals, and preventing the sale of meat from this source. With these doubts, I directed the inspectors to examine the internal organs of the Texas animals, particularly the spleens, and when anything unusual in their appearance was observed, to keep them for my inspection. At this period I devoted much time to the examination of the cattle slaughtered, and while thus engaged, I noticed that the spleens of the Texas cattle were larger, and that the color of nearly all was like castile soap. My attention was called on the 20th of August, at one of the slaughter houses, to four spleens, weighing from four to five pounds, presenting the dark mottled appearance so characteristic of the color of this organ in the native animals that died, and when cut into they presented the same appearance of disorganization. The livers and urine of these animals were also examined, but they presented nothing unusual to the naked eye. Specimens of each were submitted to Dr. Mannheimer for microscopic examination, without telling him from whence they were obtained. After careful examination, he reported that the specimens presented the same structural lesions and changes, but not in so marked a degree as in cattle that had died, and that he supposed they were convalescing—at the same time showing me the specimens under the microscope.

From this time forward all cattle slaughtered were subjected to the same scrutiny, and a record of the weights of the spleens was kept. The following table, showing the relative weights of Texas, Cherokee and native cattle, confirmed me in the opinion that

Several days after, my attention was called to an acute case of this disease, well marked, with a spleen weighing eight pounds, of which this is a photograph. The liver was also enlarged, but there was no bloody urine present. In other respects the lesions and changes were the same as in native cattle. Five more cases were found during the month of September, in only one of which, however, was bloody urine found in the bladder. These cases were so well marked that they were condemned, one of them presenting the greenish tinge of the fat, and the mahogany color of the meat, so commonly seen by the New York board. This animal had just arrived from Abilene, and it is but justice to say, that I think that the hardships of the journey had much to do with its condition. With these facts before me, I did not hesitate to announce that the Texas cattle were not in perfect health, and my observations since have confirmed me in this opinion, and they have also been substantiated by others.

After the practice of weighing spleens had been continued for several days, it became apparent that important deductions could be drawn from this mode of investigation, while at the same time the inspection would be conducted more minutely. The weights of the liver was directed to be taken, so that the relation of the two organs, in the same animal, could be settled, and whatever changes climate, breed, and care of them exercised, could be ascertained. It had already been settled that the spleens of the southern cattle weighed more, and were larger than in native cattle, but, to my astonishment, the conditions with regard to the liver were reversed. As a general rule, it was found that when the animal, native or southern, was in good condition, the spleen weighed less and the liver more than when the opposite was the case. When the animals were well cared for, the spleens were small and the livers large, and in cases where the animals had been transported or driven a great distance, or received but little care, the spleens were much enlarged, with a proportionate decrease in the size of the liver. We weighed them indiscriminately, no distinction being made in the sex at first, but a few of them were separated. I have prepared from the records of the board of health the following table, which gives the weight of 8,403 spleens, and 7,957 livers, of native, Texas and Cherokee cattle:

Cattle.	Month.	No.	Ag. Spleens.	Av. Spleens.	Ag. Livers.	Av. Livers.
Native—Male and female....	Aug..	93	130	1.40	1,191	12.80
“ “ “ “	Aug..	132	184	1.39
“ “ “ “	Sept..	1246	1846	1.48	16,522	13.26
“ “ “ “	Oct...	124	163	1.31	1,610	13
“ “ “ “	Sept..	257	373	1.45	2,921	11.36
“ “ “ “	Oct...	167	203	1.21	2,252	13.42
“ female.....	Sept..	1444	1997	1.38	17,794	12.32
“ “ “ “	Oct...	1455	1745	1.20	19,506	13.40
Texan—Male and female....	Aug..	187	526	2.81
“ “ “ “	Sept..	252	652	2.53	3,002	11.91
“ “ “ “	Oct...	29	112	3.86	309	10.65
“ “ “ “	Sept..	669	1464	2.18	8,222	12.29
“ “ “ “	Oct...	1247	2944	2.36	16,045	12.86
“ female.....	Sept..	29	70	2.41	360	12.41
Cherokee—Male and female..	Aug..	10	29	2.90	100	10
“ “ “ “	Aug..	127	301	2.37
“ “ “ “	Sept..	396	922	2.33	4,232	11.32
“ “ “ “	Oct...	24	89	3.70	254	10.58
“ “ “ “	Sept..	363	580	1.60	3,742	10.31
“ female.....	Sept..	152	241	1.58	1,622	10.66
Total No. of spleens..		8403				
“ “ “ “ livers....		7957				

From the time we commenced the inspection of the internal organs to October 25th, we examined 16,800 head of cattle. But few of the animals that were condemned are included in this list. Notes of these cases were taken by myself. It will be noticed that in the month of October, that in twenty-nine cases of Texas cattle slaughtered, the average-weight of the spleens was nearly four pounds, while, in the same month, twenty-four Cherokee cattle were killed, when the spleen averaged about three pounds and a quarter. Both these lots of cattle were in a bad condition, and had been transported a great distance.

The weight of the Cherokee cattle was also less than that of native cattle included in this list, so that, for purposes of comparison, the Cherokee spleens may be said to weigh nearly as much as the Texas spleens. Evidences of former disease were found in a great many of the Texas and Cherokee cattle.

DR. CLENDENNIN, of Ohio—Will the gentleman be kind enough to inform us if these statistics apply strictly to healthy cattle?

DR. RAUCH—Not all of them.

DR. CLENDENNIN—How are we to distinguish?

DR. RAUCH—As a general rule they do, though a few of them were of cattle positively diseased, but these do not make much difference in the total average.

With regard to the microscopical observations made, I would state that, fortunately, Dr. Mannheimer, to whom, in the ordinary routine of duty as sanitary inspector of the fifth ward, the investigation of this disease fell, was a good microscopist, and such was the accuracy of his examinations, made in the first week in August, that subsequent and closer investigation verified them. He had examined the different organs, tissues, blood, bile, urine, and milk, with a microscope of not very great power, when my attention was called, by a letter from Dr. E. Harris, of the New York board of health, to the discovery of a parasite in the blood, bile and urine of diseased native animals, by Dr. Stiles, stating at the same time that a greater power was necessary to see it than that we had made use of. I immediately procured the most powerful instrument in Chicago, and in a very short time the discovery of Dr. Stiles was confirmed.

Our attention was next directed to the blood, bile and urine of Texas cattle, where we also found the spores, but not so abundant as in native animals. The plant was also seen, but not so well defined. I immediately communicated our results to Dr. Harris, and in a very short time our investigations with regard to the Texas cattle were confirmed by them. The investigations of the New York board, in this respect, were conducted with much care and minuteness, as well as everything pertaining to the pathology of this disease.

As no mention has been made of the microscopic appearance of the milk, I would say that the fat cells, or globules, were more abundant than in health. From what I have seen I am satisfied that frost kills the spores.

DR. MILES, of Michigan—Allow me to ask if any spores were found in the blood of animals apparently healthy?

DR. RAUCH—Not as a general rule, although occasionally we found animals in apparent health, that were really diseased, upon subjecting the organs and fluids to microscopic investigation. In these we found spores, but since the early part of October, no spores or plants were found in any of the animals examined by Dr. Mannheimer.

DR. MILES—It was only after the external symptoms became severe that they were seen?

DR. RAUCH—Yes, sir; this was the case with the native cattle, but they were also found in the Texas cattle, who were apparently healthy, but not in such great abundance.

PROF. CHADBOURNE, of Wisconsin—Will you be kind enough to inform us, sir, if you discovered any difference between the plant and the spores of the plant as found in animals.

DR. RAUCH—Yes, sir, the spores were more commonly seen, while occasionally we thought we saw the plant.

PROF. CHADBOURNE—How did they differ?

DR. RAUCH—The plant was composed of a series of continuous cells or joints, with a number of spores surrounding the tip or end, while the spores were simple dots.

DR. TOWNSEND, of Iowa—I beg pardon for interrupting you, but I should like to know if you noticed any well-marked disease in the human subject produced by the use of diseased meat?

DR. RAUCH—In reply I would state that special attention was paid to this subject. In a short time after the board of health commenced their investigations, and exercised a surveillance over the stock yards, slaughter houses, and the meats sold for food in the Chicago market, all danger from this source was averted, as no diseased meat was permitted to be sold. In addition to guarding the usual avenues through which the market of Chicago was supplied, all other sources of supply were cut off by means of detectives, so that all beef brought into market was completely under the control of the board. As it was stated that a large quantity of diseased beef had been sold for consumption before this time (which I do not believe was the case), I directed the sanitary inspectors of the different wards to investigate the matter and report to me, with as little delay as possible, whether the consumption of this beef caused any injurious effect upon the health of the city or not. In not a single instance did they report any direct results arising from the consumption of beef, nor did I see or learn of but one case where such was the result. That some diseased beef was sold, prior to this time, is undoubtedly true; but whether it was the cause of diarrhœa, I am not prepared to state, as it was at such a time of the year when diseases of that character prevail, owing to high temperature, etc., and with us, particularly to the want of drainage in certain parts of the city. If such had been the case, diarrhœa would have suddenly increased, and after the supply of diseased beef was cut off, it would have necessarily diminished; but such was not the fact. Then again, owing to the general feeling of distrust for a short time, but little beef was consumed; this also caused no perceptible change in diseases of this character.

DR. JOHNS, of Illinois—Mr. President, I move that Mr. Brown, of Jacksonville, a brother of the late Captain Brown, whom we all knew by reputation, if not personally, be requested to address the convention, for, though not a member of this body, he has had a great deal of experience in cattle-raising.

The motion prevailed.

MR. BROWN—Mr. President and gentlemen of the convention, I am happy to be able to state whatever I may know, to gentlemen of intelligence and experience, who seem to be in good faith considering carefully the subject matter before them. The questions submitted to this convention are, in my humble judgment, of great magnitude, appertaining not simply to a few states, but assuming national, international and continental proportions, thereby rendering the responsibility with which you are invested, one of no ordinary character. I will endeavor, gentlemen, to talk plainly, and to the points that seem to me worthy of consideration, in view of the action contemplated by this convention. I am highly gratified that the investigations in regard to the causes, character, and in short, everything pertaining to this disease have been carried so far. But, it seems to me that while these are exceedingly important, the time has come when some proper regulations should be at once adopted under which the vast cattle interests of this country may be conducted in accordance with suitable sanitary regulations.

To come, then, immediately to the subject matter. The first point to which I wish to call your attention, is this: It seems to be conceded on all hands that this disease is communicated to "home" cattle (and I use that term as embracing all cattle except those brought from Texas), though grazing where Texas cattle have grazed before them. I am just as well satisfied, too, that this disease is communicated as well by cattle that come by the way of Abilene, as by those that come up the Mississippi river, or any other route—when the grounds upon which they have fed, are in turn cropped by other cattle—as I am that this convention is now in session before me. I will give you a little of my own experience in handling these cattle; for, though I do not reside upon a farm, I have, whilst a citizen of Illinois, been a greater part of the time concerned in the management of cattle. Early in July last, or about the last of June, we purchased at St. Louis two hundred head of cattle, brought from Abilene by

Mr. Gregory, of Greene county. They were forwarded, by railroad, to our station, some eight miles south of Jacksonville, and about ninety of them were placed on a couple of farms in that neighborhood, for the purpose of being grazed, as we did not wish them upon the same farms with our native cattle. One hundred and eleven of this same lot I took to a farm which I owned, adjoining Jacksonville, and placed them in an inclosure fronting upon the street, but separated from it by a common rough-and-ready fence. The milch cows of the town grazed right along in front of that tract, and of another lying a little west of me, belonging to Mr. Alexander. Those cattle remained in that pasture about a month, when we removed them to another, on the northern part of the farm, where they were in contiguity with the neighboring cattle on the north, outside of the inclosure; while in the front of the pasture, there were a few head of milch cows grazing. After these two pastures had been exhausted, we rented of Mr. Alexander a strip of ground, fronting on a street running on the west side of his land; which land, in turn, fronted upon the same street in which I grazed the cattle in the first instance. Those cattle all remained healthy, although thus exposed to the public roads adjoining the city of Jacksonville, where foreign cows were continually passing along. The same is true of the cattle grazed eight or ten miles below Jacksonville. These facts, connected with innumerable others, together with those reports submitted by Dr. Johns and my brother, go to show that it is (I will not say impossible) not at all probable that the cattle inside of an inclosure will communicate this disease to those outside. Though an extremely rare case may happen to the contrary, it seems to me that for the purpose of our ordinary business transactions, we may regard that proposition as true.

I believe that I will so far trespass upon your patience as to read to you, upon this subject, a portion of a letter written by a gentleman in Missouri, who has had a great deal of experience regarding this particular point. It is as follows: "Without troubling you with details, I will first state to you the conclusions to which I have arrived. First, and most important, how is the disease communicated? Beyond a doubt, from contact; or rather from feeding or watering with or after Texas cattle, as I have never yet known a case that could not be traced directly to those causes; nor have I known a case in which the disease was com-

communicated when a fence intervened between the healthy and affected stock. I have had my own cattle separated from large herds of Texas cattle only by a fence, without any evil results. And of the immense number that have died on this road, none have died on pastures from which Texas cattle have been excluded. The instances to substantiate this view are so numerous, that I will not undertake to enumerate them. My own opinion is, that the poison is taken from the stomach," etc. Then he goes on to state his theory about the disease. That is what Mr. Chisholm has to say about the matter. I have not had a case, myself, since adopting this plan, though tens of thousands of Texas cattle have passed my door.

If it be true, gentlemen, that cattle thus isolated in this simple manner do not communicate the disease, what next? Is this disease communicated by bringing these upon the railroad? On the ears that run from Kansas City to Quincy and Alexander, home cattle were transported in them one day, and Texas cattle the next, if the ear got back so quick. If I am correctly informed (and I confidently believe I am), not a single home steer has been contaminated by being transported in that manner. I believe I am warranted in saying this is true. And if it be, bearing in mind the fact that thousands and thousands of cattle have been shipped over this road this season, where is the danger of shipping Abilene cattle into Illinois, or any other portion of this great northwest? And when they have grazed upon our pastures, and fattened upon our corn, where is the danger of taking them to New York and feeding the poor of that city upon them? If Texas cattle are excluded from that market, then the lower classes must do without their beef, because the price of it will be so enormous that the poor man cannot afford to buy it. Therefore, this question is not one simply of interest to the farmers of the west, and to the people of Texas, with their millions of cattle; but involves, as well, the sustenance of the working classes of the eastern and northern cities, who as much deserve the consideration of this convention as those who can eat beef irrespective of the price.

Allow me to allude to another point just here, for fear I may forget it. Is it true that there is any danger of domesticating this cattle disease in Illinois, or any part of our northern country, through these spores? Is there any danger? If there be, we,

who live in Illinois, are most deeply and vitally interested ; and it behooves us to be on the alert, lest we be involved in it. I imagine, however, that this theory is not practically true, and I will present one or two reasons why it seems to me that it is not.

In the first place, for twenty years, except during the war, I have been, to a greater or less extent, handling these Texas cattle in Illinois. Is there any man who, during that time, has ever known of the cattle disease being communicated to a single animal in the spring following the summer and fall, during which Texas cattle have been grazed upon those lands ? I don't believe that a single man can be found who will even intimate that.

Again, in regard to a paper read this morning by the gentleman from Missouri (Mr. Smith) ; and, also, with regard to a conversation which I had, the other day, with a representative from the southwestern part of that state (Mr. Moore.) It was stated both in that paper and by the gentleman, as I understood, that during the war there was no Texas cattle fever in southwest Missouri. I believe the gentleman, also, concurred in the belief, that after winter had intervened there was no danger.

MR. MOORE, of Missouri—I beg your pardon, sir ; that is not my opinion. All the information that I have upon that subject goes to show that the winter does not kill the disease.

MR. BROWN—I am glad to be corrected, sir. If I understood the report read this morning, it stated that during the war (which occupied at least four years) there was no Texas cattle fever in southwest Missouri, for the reason that no Texas cattle were brought there.

Now, if this disease can be communicated in the manner stated by the theory I have just alluded to, would not it have been likely to have appeared ? Will the gentleman be kind enough to state how it is, that if the disease may be propagated as he supposes, it was not, in fact, disseminated during those four years of war.

Now, gentlemen, it seems to me that, taking all these points together, we have information enough to enable us to adopt some simple, just and equitable measures, easy to be understood and easy to be enforced, in relation to this disease. Suppose that during the months in which this disease is liable to be communicated (giving the widest margin), Texas cattle be excluded—say from the last of March to the first of October, until the frost comes—then permitting them to come in—holding every man responsible

for any damage that may result from the infraction of the law into which this measure is proposed to be enacted.

THE PRESIDENT—I would like to ask you, sir, if killing frosts occur in this section until about the first of November?

MR. BROWN—I am not very familiar with that subject, Mr. President; but I believe that, although some seasons are warmer than others, the weather is by that time sufficiently cool to, with proper safeguards and restrictions, allow of these cattle being brought in.

Two or three other brief remarks, gentlemen, and I am done. As was remarked by the gentleman from Kansas (Mr. McCoy) yesterday, Texas is an immense empire, capable of being divided into four states, as provided, whenever the proper time shall come. It contains millions of cattle, which, with proper regulations, can be brought into Kansas, Nebraska, Iowa, Missouri, Illinois, and other sections of the country, and consume the grass and corn which otherwise would be comparatively worthless. Unless they can be allowed to do that, we shall be simply doing a small business in home cattle, that will hardly afford our farmers a decent rent for the lands upon which the cattle are grazed. There are exceedingly few, right here in the center of this great cattle region, who have gained a fair compensation for their grass and corn simply by handling home cattle; and I venture to say that this very year, some of the most careful men in Morgan county will lose money in carrying on that business, for the simple reason that I have stated.

DR. CORSON, of Pennsylvania—Will the gentleman be kind enough to explain, Mr. President, why prices should be so low that no money can be made if Texas cattle should be excluded?

MR. BROWN—Prices of home cattle will be higher if you exclude Texas cattle.

DR. CORSON—I understood you to say that farmers could not raise home cattle enough to consume the grass and corn?

MR. BROWN—They would be able to do so in a limited way, but the revenue would be proportionably lost, unless they could realize what I suppose they could not—famine prices.

DR. CORSON—Would it not be rather because they could not send the necessary number?

MR. BROWN—Precisely—they could not raise them.

MR. EARL, of Indiana—Are not these your views, sir: that it would be impossible for the farmers of the west to raise calves and send them forward as stock, so as to make it profitable?

MR. BROWN—Precisely.

One word more. I believe it is conceded that when these Texas cattle leave our western farms—go to the eastern markets and are slaughtered—they make good, wholesome food.

And if that be so, why is it, I ask, in the name of reason, common sense and humanity, that they are to be excluded? The good God made them for some wise purpose. He did not constitute that vast domain so admirably adapted to the raising of cattle, that they might merely reproduce themselves and die, generation after generation. He made them for the use of man; and now, when we may safely make use of these animals to the great benefit of the western people, through the consumption of their grass and grain, and benefit just as much the eastern people by giving them good healthy beef, at prices which they can afford to pay—how can any one argue that this great traffic should not be allowed to go on, under suitable restrictions?

MR. POOLE, of Indiana—Mr. President, I wish to make one remark; not only in justice to myself, but to the state board of Indiana, the people of that state, and to its governor, who kindly sent me a letter requesting me to come here.

I am here as one of the commissioners of that state. I had no intention of saying one word that was not true, and have made no statement here that is not a fact. That being the case, I do not feel as though I had been treated exactly right when gentlemen rise here with positive assertions and statements, and undertake to show distinctly that what they say is so, and that what I have said is false.

Now, sir, I stated yesterday that this disease had been contracted by cattle that were never outside of a field that Texas cattle had never been inside of. And I stand here ready to substantiate that testimony by the evidence of as good men as there are in Indiana or Illinois—of the men, themselves, who owned the cattle, who will swear, positively, that what I stated was true.

MR. BROWN—One word, if you please, Mr. President. I did not intend to question the truthfulness of the gentleman's statement; but, as I recollect it, it was extremely doubtful whether

the disease was, or was not the result of communication between the cattle. I positively disclaim all intention of discourtesy.

MR. CHRISTIE, of Canada—Mr. President, the matter in regard to which this little conversation has just taken place, is a very important one; and for the sake of clearing it up beyond all controversy, I wish to refer to a fact which come under the observation of the Canadian commissioners, and which occurred in this state during the month of August last.

In the Illinois correspondence of the *Country Gentleman*, date of 13th of August, it is stated: "In the town of Tolono lives a Mr. Larmon, a very pains-taking and hard working man. His cows are fenced within his lot, and this is watered from a well three times a day. His cows were divided from the open prairie and the Texas and native cattle by a common board fence only; yet he has neither lost an animal, nor have they been in any way affected."

I will now read to the convention Mr. Larmon's own statement, premising, by the way, that on visiting Tolono, there was not, and never had been a man there by the name of Lawrence, and that the name of the gentleman in question was Isaac Larmon. His narrative, under his own signature, is as follows: "My two cows have been grazing in an inclosure adjoining the prairie where the southern cattle graze, only separated from them by a common board fence. I attended to my cattle regularly, three times a day, until about ten days ago. I supposed them exempt from the disease. About that time, one of them showed symptoms of illness, and died after three days' sickness. The other became sick; and it is my opinion that she is in the last stage of the disease.

I am of the opinion that my cows got the infection from the Texas cattle. I have seen the Texas cattle dying in great numbers, apparently of the same disease, having the same symptoms. There is no one in the town of Tolono, within my knowledge, of the name of Lawrence, as mentioned by 'B. F. G.' in the *Country Gentleman*."

I may state that when we called upon Mr. Larmon, he told us he left the last of his cows for dead that morning, and that she was then lying in the ditch. We found her there, still alive, and dragged her out by means of some ropes. She was able to get

on her feet, but was in a very weak condition, being in the last stages of the disease, and died the next day.

Here, then, is a case beyond all controversy—the very case which has been referred to as positive proof that cattle could not contract the disease when protected by a common board fence—establishing the fact that such protection is not sufficient.

DR. CLENDENNIN, of Ohio—Mr. President, I have heard with a great deal of pleasure the results of microscopic examinations which have been detailed to us by several members, which I believe to be extremely important to the correct understanding of the nature of this disease. In relation to them I wish to make one remark.

There seems to be one link, at least, wanting in the chain of evidence with reference to these spores, and that is what produces this disease in cattle in Texas, and to what extent does it there prevail?

If I understand correctly the statement of the gentleman from New York (Mr. Morris), these spores originate among the native grasses of Texas, are brought hither by the Texas cattle, and by them disseminated. Now, if that be so, then comes this question: is the disease much more prevalent there than it is here? The ascertaining of that fact is, it seems to me, the starting point.

In reference to this doctrine of spores producing disease, we have conflicting opinions. In the early part of the war, measles were generally very prevalent throughout the army. One medical gentleman attributed the disease to a particular kind of a spore or cryptogamous plant, which was always found, he said, in straw. But it is well known to all of us that straw was very rarely found in the front, where measles prevailed to a very considerable extent.

Professor Mitchell, of Philadelphia, published as early as 1846, I think, a little book, in which he claimed that we had, in this doctrine of spores, an explanation of causes of the potato rot, cholera, yellow fever, intermittent and remittent fever. There certainly are some points connected with the statements made to-day, with relation to the development of these spores, which, it seems to me, are not fully elaborated, but what I wish to know just now is, whether there is any gentleman present who can give us any information regarding the prevalence of this disease in Texas.

MR. PIPER, of Illinois—Mr. President, a notice has been handed to me by a gentleman largely interested in cattle-raising in this county, and which I wish to read to the convention. There is a gentleman present who can explain it.

It is as follows: "I understand that E. R. Ulrich and Wilson, wintered some Texas cattle in Kansas last winter; that some of them were kept on hand until summer, and communicated the disease to other cattle."

Mr. Ulrich is in the house, I see, and can tell us whether that is the fact.

I would suggest, Mr. President, as no invitation has been given to cattle-dealers generally (and there are very many of large experience who are attending our deliberations, and are much interested therein) to give us their views on this subject of Texas cattle, they be respectfully requested to do so.

The motion prevailed.

MR. HOWARD, of Michigan—Mr. President, there are one or two doubtful points, in the subject under consideration, so very important that it seems to me they should be more fully elucidated than they have yet been. One of these is: whether it is possible that the disease may continue through the winter and be propagated the following season—and in regard to that, some gentlemen have stated that they could give us information.

It seems to me that we had better use as much method as possible, and first clear up these doubtful points—especially those in regard to the source of the disease, and whether it can be continued through and propagated after a winter.

MR. BARRETT, of Missouri—It seems to me, Mr. President, that we have consumed a good deal of time in speech-making, which has elucidated comparatively few facts, and in order that members may feel the necessity of expressing themselves briefly, and to the point, I offer the following resolution:

Resolved, That members of this convention and others who may be invited to address us, shall not consume more than ten minutes at a time, in the discussion of any subject.

The resolution prevailed.

MR. PIPER, of Illinois—I move, Mr. President, Mr. Ulrich be invited to give us an explanation of the note which I have just read.

The motion prevailed.

MR. ULRICH—I accept your invitation, Mr. President, and the explanation is as follows: We sent to Kansas two shipments of blooded cattle from this county (perhaps in all fifty or sixty head), the first lot being shipped last winter, and the last some time in May, I think, of this season.

Mr. Wilson, in November last, I think, bought there six Texas cows, who ran on the prairie with these native cattle. Besides that, I had a herd of some three hundred cattle, that once in a while would get on the same ground with these cows.

In July, Mr. Wilson wrote me that one or two of these blooded cows, sent out in May, had died, and that one or two more were sick. He is here himself, I believe, and can state exactly the number of cows we lost, but I don't think there were more than four out of the whole fifty or sixty, and none of my native steers running there died at all.

I cannot entertain the idea that these six Texas cattle were responsible for those deaths. That is more than I am able to understand, because if they gave the disease to part, why should they not to all? It seems to me, that these three, four or five cows, having just been shipped out there, very likely died while undergoing acclimation, for if the Texas cattle communicated the disease to them, it does seem as if they must have communicated it to hundreds of others with whom they came in contact.

MR. CHRISTIE, of Canada—Allow me to ask you, sir, in what part of Kansas did this occur?

MR. ULRICH—Twelve miles northeast from Topeka, sir.

MR. MORRIS, of New York—Mr. President, in explanation of the remark of the gentleman from Ohio (Mr. Clendennin), I would simply remark that it is a well-known fact among botanists, that this microscopic cryptogam does grow upon bottom lands in warm latitudes.

Another point that I omitted to mention is: that these spores are found only in the blood of Texas animals, either sick or well, or in the blood of sick native animals. They never yet have been found in the blood of healthy native animals.

THE PRESIDENT—With your permission, gentlemen, I will call upon Mr. Hill, of Illinois, to give us some information on the subject.

[Certainly, certainly, let us hear from him.]

MR. HILL—Mr. President and gentlemen of the convention, the citizens of our township (Tolono), who have been the greatest sufferers in the state of Illinois, have sent me here to make a representation of their case, if permitted to do so, and to entreat you that your measures might so be shaped as to grant us, if not relief for the past, yet security for the future.

Our little town is situated, as you are aware, at the crossing of the Great Western, and the Chicago branch of the Illinois Central. Great preparations were made there last spring by the Illinois Central Railroad, and many thousand dollars expended in building fine cattle-pens and barns, which, although the road denied it, we supposed were intended (as the fact turned out to be) for the purpose of facilitating the importation of these Texas cattle. The first train containing any arrived on the 29th of last April, and they continued to come until late in the summer. About the 10th of June, the cattle disease broke out and continued to rage as long as there was material for it to work upon, until nearly all of our cattle fell a prey to it. Among the few left, the disease still continues to work, one gentleman having lost some five steers only last week. On the 5th day of September, within two miles of the town, I think there were but two milch cows left, and up to that time seven hundred and seventy-six cattle had died in that little township, which polls but a trifle over two hundred votes, since which time two hundred more have died.

Some facts have been stated in regard to Mr. Larmon's cattle, and the disease not being communicated to them across a fence. As I am a near neighbor of his, I will just state what I know about that. His cows were among the last that died, but they did die, notwithstanding that they were inclosed, I think, by a common five-plank fence.

Our loss has not only been very great, but has borne very hardly upon us, as a large portion of our population consists of foreigners, who have kept one, two and three cows, the milk and butter of which constituted the chief support of their families. Having lost their stock, they are unable to buy any more.

The gentleman (Mr. Brown) argued very strongly, a few moments ago, in favor of bringing in and raising Texas cattle here, for the reason, as he asserted, that there is no profit in raising home cattle. I would like to know if the cattle raisers of this country did not make money before Texas cattle were imported. They

certainly did, and most of them got rich upon the profits of native cattle raising ; and so it would be now, if these Texas cattle were not brought in. Many a small farmer has purchased his farm, expecting to pay for it by raising home cattle. We have many such instances in our country, where men had fifty, sixty or seventy head of cattle, which they expected to sell this fall, and thereby pay for their places. But having lost their stock, their farms must go, and they themselves be reduced to poverty.

Not only have our cattle been thus destroyed, but our horses are now dying from this same disease, a number having died this last week with precisely the same symptoms, in every respect, as those of the Texas cattle fever. We are, sir, now deprived of our cattle, and if our horses are taken away, what must become of our country? It must return to its native wildness, and become a wilderness. You can hardly find a man in Tolono who is not desirous of selling his farm and leaving that section. A great many have sold out, many others say they will be obliged to if these cattle are still brought in as they have been; and thus the whole of that portion of the state may become depopulated.

The argument in favor of importing these Texas cattle, in order that certain parties may profit thereby, reminds me very strongly of the old fable of the boy and the frogs. It is all very nice, as far as they are concerned, for a few cattle dealers to flood the country with these Texas cattle, and enrich themselves, but it is death to the inhabitants, who not only have lost their cattle, but who must pay taxes on them notwithstanding, that is, they must, according to law; but our people are not able to do that, and the taxes cannot be collected. The farmers of our section are driven to desperation, and I will say to the gentlemen here who argue in favor of bringing in Texas cattle as a means of cheapening beef, that if any body brings any more Texas cattle into our region, their meat will be very cheap there, just as sure as you are born. This is the state of feeling there, and has been for the last three months. It has been all that the conservative and law-abiding citizens could do to prevent the tearing up of the railroad and the killing of the cattle brought there, and if more are sent, it will be impossible to any longer restrain mob law, much as that is to be deprecated.

Great as is the necessity of supplying the New York market, we must look at what we are to do at home. I ask this honorable convention whether the people would rather do without Texas beef

or without milk and butter, for you must dispense either with the Texas cattle, or with those staples. We have not had any milk in Tolono, that is, none to speak of, since last July, and where butter used to be ten or twelve cents a pound, it is now forty-five and fifty, it being impossible, half of the time, to get any for love or money.

THE PRESIDENT—The gentleman's time is up. Will the convention extend it?

[Certainly, certainly.]

MR. HILL—Thank you, Mr. President and gentlemen. As regards the argument that these Texas cattle should be brought in, in order that certain men may reap the profit, and that eastern markets may be supplied with cheap beef, it seems to me that for the same reasons, you might as well break down the manufacturing interests of the United States in order that England may flood us with cheap goods, and that importers may grow rich thereby.

MR. GOULD, of New York—If the gentleman will pardon the interruption, I should like to ask him how many milch cows are now left in Tolono?

MR. HILL—Only two.

MR. GOULD—Be good enough to tell us how many you had before the disease appeared.

MR. HILL—I should think at least four hundred and fifty, sir.

MR. GOULD—Has there ever been any examination made of those horses which are said to have died of the Spanish fever, and if not, please state what the external symptoms were.

MR. HILL—I don't think there has been any scientific examination, sir. The external symptoms were drooping of the head, roughness of the coat, rounding up of the back, and weakness across the loins; finally, the animal sinks down and dies.

MR. GOULD—Did you observe any bloody water?

MR. HILL—I never examined that, but there is a yellow mucus exuding from the nose and mouth, accompanied by drooling, as in the cattle disease.

MR. GOULD—Are there frothy air-bubbles in the mucus of the mouth?

MR. HILL—Yes, sir.

MR. GOULD—No bloody water has ever been generally observed?

MR. HILL—I think not.

MR. GOULD—What is the condition of the stools?

MR. HILL—Dry and hard.

MR. GOULD—Is that invariably so?

MR. HILL—I think it is; nearly so.

MR. GOULD—Have you ever observed anything with regard to the odor of the sick animal and the healthy?

MR. HILL—There is a very noisome smell of both. A day or two before they die there is a moisture, almost like grease, on the tongue, which smells very badly.

MR. GOULD—Has there ever been any attempt to measure the temperature of the animal when sick?

MR. HILL—I think not, sir.

MR. GOULD—How many horses have died, as near as you can recollect?

MR. HILL—I think, seven or eight at first, and four or five since; some of which have died within the last two or three weeks, and some four weeks ago. Several horses died earlier than that; but not thinking that this disease would affect the horses, no particular attention was paid to that at the time.

MR. GOULD—Did these sick horses have any peculiar expression of the eye?

MR. HILL—Yes, sir; the same expression that cattle have, as near as a horse can look like a creature.

MR. GOULD—Have any mules died with this disease, sir?

MR. HILL—There are considerable many employed about there, but I don't think that there have—never heard of any. I can give you the names of those who have lost horses, and you can communicate with them.

DR. KILE, of Illinois—You stated, I think, sir, that cases had occurred where Texas cattle outside of a fence had communicated the disease to cattle within the inclosure?

MR. HILL—I only know certainly of one case. I would not hazard an assertion, but I think other cases have occurred.

MR. THAYER, of Massachusetts—I understood you to say, sir, I believe, in relation to the discharges from the nose and mouth, that they were both of a yellowish color?

MR. HILL—Yes, sir.

MR. THAYER—Alike from both?

MR. HILL—Yes, sir.

MR. THAYER—How was the respiration—hot?

MR. HILL—Hot and difficult—just before death.

MR. THAYER—How was it in the first stages; or rather I will ask you, how long did the disease continue before death ensued?

MR. HILL—They died in not more than from three to four days after we discovered that they were diseased.

MR. THAYER—One more question, if you please. Do you know whether the horses lay down any during the sickness?

MR. HILL—I cannot answer.

MR. GOULD, of New York—Was there any cough, sir?

MR. HILL—No, sir; none more than natural. It was nothing like the cough of a horse afflicted with the horse-distemper, or anything of that kind.

MR. STOCKDALE, of Ohio—Allow me to ask you, sir, if any young calves still sucking, died?

MR. HILL—Yes, sir; considerable many calves died, but not nearly so many of them as of the old creatures. A good many sucking calves did die; but sometimes the cow would die and the calf would suck until death and yet not die.

MR. POOLE, of Indiana—Let me trouble you with one question, sir. Might not those calves have died from want of nourishment and care, whether there was any disease or not?

MR. HILL—I don't think that was the case, sir; for there was so much good feed that a calf a month or six weeks old could have subsisted very well. There might have been, and probably were, some very young ones that died from these causes; but some of them presented all the symptoms, and undoubtedly died of this disease.

MR. GOULD, of New York—Can you tell us, sir, whether the animals who imported the disease came from Texas by way of the river, or from Abilene?

MR. HILL—They came on the railroad from Cairo, and I should suppose by boat from the Red River to that place. Mr. Eaton can answer the question.

MR. GOULD—Will Mr. Eaton be kind enough to answer that question?

MR. EATON—My impression is that all of the cattle unloaded at Tolona came by way of the river; at least I am not aware that any came by way of Abilene.

Dr. RAUCH, of Illinois—Will you be kind enough to tell us, Mr. Hill, if any cows have died recently in the neighborhood of Tolono.

Mr. HILL—Yes, sir, some have; after our cows had all died out some eight or ten were brought from Edgar county, I think. It was stated that they had never been exposed to the Texas cattle ranges, excepting as it was necessary for them to cross where Texas cattle had been driven. They were sold in our place, and part of them have died.

THE PRESIDENT—Were those native cattle, sir?

Mr. HILL—Yes, sir, brought there four or five weeks ago.

Dr. RAUCH, of Illinois—How soon did they die, sir, after being brought to your place?

Mr. HILL—In about three weeks. They were brought there four or five weeks since, and some of them died ten days ago. Cattle are dying there yet. One gentleman lost seventy previous to the 15th of November, and when the disease broke out again last week he lost three fine steers of those few that were left over from the first.

Dr. RAUCH—Had there been any frost at Tolono?

Mr. HILL—Yes, sir; both frost and snow.

Dr. RAUCH—Is it certain that the animals were not exposed to the influence of the Texas cattle before being brought there?

Mr. HILL—I am only able to state on the responsibility of the gentleman who brought them there.

Mr. EARL, of Indiana—Allow me to ask you, sir, if there have been any late importations of Texas cattle, say since September, that may have imparted this disease, or was it caused by the cattle that came in in June and July?

Mr. HILL—It was from cattle that came in in June and July.

Mr. CHRISTIE, of Canada—Another question, if you please, Mr. Hill. You say that some steers have recently died?

Mr. HILL—Yes, sir; and a number from an importation of native cattle.

Mr. CHRISTIE—Were those steers at Tolono during the season, or have they been imported since?

Mr. HILL—They were near Tolono, on a farm, all the summer, sir. Seventy died previous to the 15th of September; eight or ten of the same head escaped then, three of which died last week.

Mr. CHRISTIE—Then they were in contact with the diseased native cattle of the same herd?

MR. HILL—Yes, sir; and of the ground on which Texas cattle had died.

MR. CHRISTIE—That shows the second period of incubation.

DR. MILES, of Michigan—I should like to know the facts, Mr. President, in regard to the communication of this disease after the winter has elapsed. The gentleman from Missouri (Mr. Moore) can enlighten us, I believe.

MR. MOORE, of Missouri—What I have to state, Mr. President and gentlemen, in relation to the question is simply this. Some freighters about to cross the plains selected native and Texas cattle, herded them and fed them together during the winter, made up their teams in the spring, and started across the plains with all their animals apparently well. When they had got half way across the plains, the native cattle were all dead, and the Texas cattle were left to make the journey alone. Those are the facts as communicated to me by a gentleman who was with the train and knew all about it.

DR. MILES, of Michigan—Were these animals obliged to pass over the trail of Texas cattle, do you know sir?

MR. MOORE—There were no trains, except the oxen, going that way—that is all I know in that particular. I am perfectly familiar with the Spanish fever among horses, as I have had many afflicted with it while in Texas. The horses have it more there than the cattle, and they are not considered of hardly any value after having been troubled with it—and they seldom do recover so as to be of any use.

DR. CORSON, of Pennsylvania—Will you be kind enough to tell us, sir, whether the Texas cattle have the fever in Texas. A gentleman informed me yesterday that they did not.

MR. MOORE—I very seldom saw a case there, sir, among them, and I resided there six years, though I have seen very many horses have it there.

DR. THAYER, of Massachusetts—I should like to ask you, sir, whether the symptoms of the disease called Spanish fever, among horses in Texas, are the same as the symptoms of that fever, so called, among cattle in Missouri?

MR. MOORE—Yes, sir; it is looked upon as the same thing, and I think they are the same exactly.

MR. BARRETT, of Missouri—Mr. President and gentlemen, in 1866 I started from St. Louis to go to Texas. Having but a short

time to make the trip, I selected what I thought was the best horse I ever saw—I think I averaged forty-five to fifty miles a day. On getting about to the south-western part of Missouri, I found the corn worm-eaten, and little or no hay, so that I was compelled to graze him in the daytime. The morning following my arriving in Texas my horse was taken sick, with very much the same symptoms that have been described here as belonging to the Texas cattle fever, and was told there that my horse had it.

I offer this information in corroboration of the fact that horses do die of that fever when taken to that country.

MR. MCCOY, of Kansas—Mr. President, when the first reports reached us at the west regarding cattle dying of Spanish fever in Illinois, there were then at Abilene between thirty-five and forty thousand cattle, and probably some six hundred persons attending upon them. I made it a point to inquire diligently among all these drovers, cattle-holders, etc., who were perfectly familiar with the whole subject, whether in the state of Texas they had anything like the Spanish fever among the cattle there. And I state as matter of fact to this convention, that I never yet found one single man who had ever seen or heard in that state of one case of Spanish fever among the cattle; but they all said it was frequent among the horses. Furthermore, that a horse was worthless after having had it—of no account at all.

It has occurred to me repeatedly, during the session of this convention, that we should ascertain beyond all question whether or not this disease does exist among cattle in Texas; and should also find out, beyond all possibility of doubt, what are the roots or seeds of this disease. It seems to me that there is where we must commence our investigations in order to arrive at a correct conclusion. We have not yet been able to ascertain, to our own satisfaction, the point from which it originates. The furthest southwest that we can trace it, is southwestern Missouri and southern Kansas; for I have, at least, yet to hear of a case in the Indian country.

MR. BARRETT, of Missouri—Did you ever hear, sir, of a case of our native cattle being taken from the states to Texas, and there dying of the Texas fever?

MR. MCCOY—Well, sir, I have made some inquiries upon that subject, of drovers bringing cattle from the central and southern part of Texas, why they did not come north and procure the

means of improving their stock, and make it as good as the stock in northern Texas. Many of them would state that their stock was so near worthless—there being no market—that it would not pay for them to take that trouble. Others would say that such and such a one had tried that, but the imported animals had died. But Durham stock has been successfully taken from this state, and have very much improved the native stock of the northwestern portion of Texas, so that to-day, cattle coming from the north or northwestern portion of that state are as radically different in appearance from those of the lower counties, as the improved Durham is from the Southdown. The difference is so marked that whenever a drove of Texas cattle arrive in any market, well posted men can readily tell what section of the country it comes from.

MR. BARRETT, of Missouri—Will you be kind enough, sir, to answer my question a little more fully?

MR. MCCOY—I stated, sir, that the native cattle taken into the southern and central portion of Texas, for the purpose of improving the stock, died as I am told. Whether they died of this cattle disease, or in consequence of being transported there, I am unable to say; but I do say that into the northern portion of Texas the importation of Durham stock has been so successful as to radically change the cattle of that section of the country.

DR. CLENDENNIN, of Ohio—I wish, Mr. President, to make one statement. It may not be known to some members of the convention, that in the agricultural report issued from Washington in 1860, there is a very full history of attempts made to propagate, in Texas cattle, from the northwestern states.

DR. JOHNS, of Illinois—I move, Mr. President, that the convention will now adjourn to half past seven o'clock this evening. The motion prevailed.

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EVENING SESSION.

The convention met pursuant to adjournment.

MR. GOULD, of New York—Mr. President, I have the honor to submit the following report from the committee appointed at a preceding session, for the purpose of drafting certain propositions

relative to this cattle disease, which might be enacted into laws by the legislatures of the respective states :

The convention of American Cattle Commissioners, assembled at Springfield, Illinois, respectfully recommend to the several states represented therein, to give effect by legal enactments to the following general propositions which are believed by the convention, to embody principles which are of the greatest importance; not only for the welfare of the cattle interests, but for the security of the people themselves.

I. COMMISSIONERS AND ASSISTANT COMMISSIONERS.

1. Three commissioners, or such other number as the legislature shall deem proper, shall be appointed by some competent authority, to hold their offices for five years, and shall report annually to the legislature.

2. Such commissioners shall watch over the general welfare of cattle within the state for which they are appointed, and particularly for the purpose of preventing the spread of dangerous diseases among them, and of protecting the people of the state against the danger arising from the consumption of diseased meat.

3. They may from time to time appoint such assistant commissioners, to aid them in the discharge of these duties, as the welfare of the public may require.

4. They should have power to administer oath, and to prescribe from time to time such rules and regulations as may be necessary to accomplish the objects of their appointment.

5. They shall give public notice of the outbreak of any dangerous disease, and such practical directions for its avoidance as they may deem necessary.

6. They may either place such diseased animals in quarantine, or cause them to be killed, as may seem necessary for the public protection; but in the latter case, they shall cause an appraisal of such animals to be made, and the county or state shall pay such proportion of the appraised value as may be provided by law.

II. RAILROAD.

1. The commissioners, or any assistant commissioners located on the frontier of the state, shall, at such time as may be prescribed by the commissioners, have power to inspect all the cattle brought into such state, whether by railroad, vessels and common roads; and shall have power to detain such railroad cars, vessels, and droves or animals on common roads, long enough to make a proper inspection of them for the purpose of ascertaining their sanitary condition.

2. No animal shall be permitted to enter the state which shall be deemed by such assistant commissioners to be capable of diffusing dangerous diseases, or of injuring the health of the inhabitants.

3. No train shall be allowed to proceed, unless the animals contained therein have been supplied with food, water and rest, within twenty-four hours next preceding the time of such inspection.

4. All animals shall rest and have access to food and water for twenty-four hours after having traveled for a similar period.

5. The railroad companies shall provide suitable yards for feeding, watering, and resting the animals traveling on the train, and for quarantine purposes, which shall be kept in a cleanly and wholesome condition, to the satisfaction of the commissioners.

6. Each train, on leaving its point of departure, shall have a certificate, signed by an assistant commissioner, which shall certify that all the animals therein were in a healthy condition at the time of its departure, and also, the exact time of its leaving; and such certificates and indorsements thereon of the time of resting and the time of departure of the train, at subsequent resting and feeding places, shall be exhibited to the proper authority whenever required.

7. Proper penalties should be inserted to prevent the bribing of officers charged with the execution of these provisions.

8. Proper penalties should also be provided for those who interfere with, or resist the officers charged with the execution of these provisions.

III. PREAMBLE AND RESOLUTIONS.

WHEREAS, A malignant disease among cattle, known as Spanish Fever, has been widely disseminated by the transit of Texas and other southern cattle through the western and northwestern states, during the warm season of the year, occasioning great loss to our farmers, and possibly endangering the health of our citizens therein,

Resolved, That this convention earnestly recommend the enactment of stringent laws to prevent the transit through these states of Texan or Cherokee cattle, from the first day of April to the last day of October, inclusive.

Resolved, That the interests of the community require the enactment of laws making any person responsible for all damages that may result from the diffusion of any dangerous disease from animals in his ownership or possession.

All of which is respectfully submitted.

I would like, Mr. President, and gentlemen, to say this much in explanation of the report: it was utterly impossible to make it in the form of specific enactments, for the reason that the local governments of the different states vary to so great an extent.

For example, the state of Rhode Island has no county government whatever, and duties imposed by law on county officers would find no officers there to fulfill them; and so, in various other ways, it is found that the different constitutions of the states prevented any uniform enactment. The committee, therefore, decided to present their report in the form of general propositions, to be submitted to the various legislatures, to be reduced to form by those legislatures, in accordance with their respective powers.

Mr. PIPER, of Illinois—I move, Mr. President, that the report be received.

The motion prevailed.

Dr. MORSE, of Missouri—Mr. President, for the purpose of giving all, who may desire, an opportunity of saying something on these propositions, I offer the following resolution, and move its adoption :

Resolved, That in the discussion of this report, members be limited in their speeches to five minutes time, unless, by consent of the convention, that time is extended.

Mr. HAMILTON, of Pennsylvania—I move, sir, to amend by striking out “five,” before minutes, and inserting “ten”.

Dr. MORSE—I accept that amendment, Mr. President, and renew my motion.

The motion prevailed.

Mr. POOLE, of Indiana—I move, Mr. President, that we take up the propositions offered by the committee, *seriatim*.

The motion prevailed.

The secretary read the first proposition, as follows :

1. Three commissioners, or such other number as the legislature may deem proper, shall be appointed by some competent authority, to hold their offices for the term of five years, and shall report annually to their legislature.

Mr. POOLE, of Indiana—I move its adoption.

The motion prevailed.

The secretary read the second proposition, as follows :

2. Such commissioners shall watch over the general welfare of the cattle within the state for which they are appointed, and particularly for the purpose of preventing the spread of dangerous diseases among them, and of protecting the people of the state against the dangers arising from the consumption of diseased meat.

The PRESIDENT—I would suggest that, perhaps, the word “animals” would be preferable to “cattle”.

Mr. GOULD, of New York—On behalf of the committee, I will accept that suggestion as an amendment, Mr. President.

Mr. POOLE, of Indiana—I move that the proposition be adopted, as amended.

The motion prevailed.

The secretary read the third proposition, as follows :

3. They may, from time to time, appoint such assistant commissioners, to aid them in the discharge of these duties, as the welfare of the public may require.

Mr. POOLE, of Indiana—I move, Mr. President, the adoption of that proposition.

The motion prevailed.

The secretary read the fourth proposition, as follows :

4. They should have power to administer oaths, and to prescribe, from time to time, such rules and regulations as may be necessary to accomplish the objects of their appointment.

Mr. POOLE, of Indiana—I move the adoption.

The motion prevailed.

The secretary read the fifth proposition, as follows :

5. They shall give the public notice of the outbreak of any dangerous disease, and such practical directions for its avoidance as they may deem necessary.

Mr. POOLE, of Indiana—I move its adoption.

The motion prevailed.

The secretary read the sixth proposition, as follows :

6. They may either place such diseased animals in quarantine, or cause them to be killed, as may seem necessary for the public protection ; but, in the latter case, they shall cause an appraisal of such animals to be made, and the county or state shall pay such proportion of the appraised value as may be provided by law.

Mr. POOLE, of Indiana—I move its adoption.

The motion prevailed.

The secretary read the first proposition, of the second general division, as follows :

1. The commissioners, or any assistant commissioners located in the frontier of the state, shall, at such time as may be prescribed by the commissioners, have power to inspect all the cattle brought into such state, whether by railroads, vessels and common roads, and shall have power to detain such railroad cars, vessels and droves or animals on common roads, long enough to make a proper inspection of them, for the purpose of ascertaining their sanitary condition.

Mr. POOLE, of Indiana—I move its adoption, Mr. President.

The motion prevailed.

The secretary read the second proposition, of the second general division, as follows :

2. No animals shall be permitted to enter the state which shall be deemed by such assistant commissioner to be capable of diffusing dangerous diseases, or of injuring the health of the inhabitants.

Mr. REYNOLDS, of Illinois—It strikes me, Mr. President, that one man is, by that section, permitted to exercise a very great authority. It seems to me that provision should be made by which an appeal can be ultimately taken to the decision of the commissioners themselves.

Mr. GOULD, of New York—Allow me to remark, Mr. President, that the committee recognize the full force of the objection made by the gentleman from Illinois (Mr. Reynolds), but it seemed as if we were reduced merely to a choice of evils. If any possible way could be provided by which a council could be held, I should be very much in favor of any proposition looking to the accomplishment of that end; but here is a train coming in, there is no time to stop; the assistant commissioner discovers this disease, and he must either have the power to promptly detain such animals or run the risk of diffusing these horrible cancers, of which I have before spoken, through whole communities.

I suppose that the states will appoint gentlemen of character and responsibility as commissioners, and the only way that I see of obviating the difficulty is by providing for an appeal to them, and giving them power to at once remove any assistant who acts corruptly or viciously.

Mr. REYNOLDS, of Illinois—All I desire, Mr. President, is to devise some means by which, in case of difference of opinion, an appeal may be taken from the assistant commissioner to higher authority.

Mr. SMITH, of Missouri—It seems to me, Mr. President, that there can only be one way by which the suggestion of the gentleman from Illinois (Mr. Reynolds) can be carried out, and that is by providing for an appeal to all of the commissioners—the cattle being arrested in transit until a decision is had from them.

In case of a provision of that kind, it seems to me that unless the owner of the cattle should consider himself very much aggrieved by the decision of the assistant commissioner, he would not be willing to submit to the delay incident upon an appeal to the full board, but would prefer to abide by the first decision.

I move to amend by adding to that section, "and an appeal shall be allowed to the commissioners in all such cases."

The PRESIDENT—Suppose we weigh this matter a little, gentlemen. Take the case of cattle being detained at Buffalo. I can be readily on hand, but another member of the board, Mr. Patrick,

lives in Syracuse, one hundred and fifty miles from there, while yet another member, Mr. Gould, lives in Hudson, which is two hundred miles further east. There would be a very great inconvenience in getting these gentlemen all together, though two could be quite easily reached, and I suppose that would be the case in other states as well. Suppose, sir, that instead of "commissioners," you say, "to a majority of the commissioners."

MR. SMITH, of Missouri—I accept your amendment, Mr. President.

DR. RAUCH, of Illinois—I will suggest, Mr. President, that instead of saying "a majority of the commissioners," say "one commissioner," for it is absolutely necessary, sometimes, that cattle should be stopped at once, and also, that in case of difference of opinion, a decision on appeal should be had in the shortest possible time.

DR. MORRIS, of New York—Mr. President, I heartily second the motion of the gentleman from Illinois (Dr. Rauch); for I fully appreciate the motives which caused him to make it.

Butchers are very anxious to get the cattle into the slaughter houses. They can be bought at reduced prices, on account of defects, extensive bruises or disease; then the butchers will take them and spirit them away, right under the eye of the commissioner, if that can possibly be done. I had that occur in my own experience, and remember one case, particularly, where eighteen head were taken out of the yard without a permit and driven to the slaughter house, where they would have been beef within an hour, if I had not discovered the facts.

The power of assistant commissioner, in these cases, should be absolute and without any appeal, for in no other way can these animals be certainly detained.

PROF. SMITH, of Missouri—I see precisely the same difficulty as the gentleman from Illinois (Mr. Reynolds) does. Here is a herd which the inspector wishes to stop. The drover is anxious to get on, and will give \$100 to go through and say nothing—that, of course, we cannot prevent. But, suppose the inspector chooses to stop them for his own satisfaction, then, either party may appeal to the commissioner. I do not believe that so much power should be entrusted to a single inspector, from whose decision no appeal can be taken.

MR. POOLE, of Indiana—I merely wish to make one remark, Mr. President. I was a member of that committee whose report is now under discussion, and while I do not like any exercise of arbitrary power in a free government like ours, there are yet times, occasions and circumstances that necessitate it. We acknowledge it and have acknowledged it in our government from time immemorial. For instance, coming to New York from Europe, you are boarded at Sandy Hook, and the vessel is examined by one man. The whole vessel is examined, and if there happens to be any one on board with anything like a contagious disease, that person is forced to remain at quarantine as long as the officer sees fit. We are asking, only, that the one-man power shall be used in a case somewhat parallel, for is it not as positively an actual necessity that cattle should be prevented from shipment, who would breed an infectious disease, not only among their own kind, but among the human family as well. I think that the safety of the people of all communities, throughout the country, requires that this arbitrary power shall be used, at times, as an exigency that cannot be avoided.

Let the resolution pass ; then let each legislature protect its own people as the circumstances and localities of the state require—as they certainly will do, no matter what we recommend here.

DR. McMILLAN, of Ohio—I think, Mr. President, we had better let this matter remain as it is. I presume that none of our legislatures will appoint commissioners without first requiring them to give heavy bonds for the performance of their duty. If, then, a commissioner damages a dealer by arresting his stock, he is made responsible, and the courts will try the question.

DR. KILE, of Illinois—As a deliberative body, Mr. President, we should recommend nothing that will not be found beneficial to and be enacted by the different states. Now, while such a proposition as this which is proposed might be adopted, for instance, in other parts of the country, how could it be made to work in a state like Illinois, with her 2000 miles of railroad ; with ferries at every crossing for 400 miles along the Mississippi, and for 300 or 400 along the Ohio and the Wabash. In Pennsylvania and New York, there are a few single points to which all cattle tend, and where they can be inspected without any trouble to the shipper or to the purchaser. But suppose, that here, at any point in Illinois, I am obliged to halt a drove of cattle at Tolono, until the com-

missioners—scattered all over the [state—for there will have to be a very great many of them—shall have decided my appeal. Why, sir! the whole scheme is perfectly futile. So far as the State of Illinois is concerned, I cannot see that it would be of any practicable benefit.

While I am ready to admit that this proposition will work very well in the eastern states, I do think that it proposes to place too much power in the hands of one man, in view of the manner in which this power must be distributed over this section of the country.

DR. MILES, of Michigan—Mr. President, it is certainly time that somebody must have the power to stop diseased animals, if we have any sanitary regulations whatever. I do not exactly appreciate the point of the last gentleman, relative to his cattle being stopped at Tolono, for if they are diseased, they certainly should be stopped at the very first start, in order that the eastern states and the rest of our new territory may be protected.

Then, again, if it is understood that diseased animals are not to be allowed to go forward, dealers will be very careful how they start such in the first place.

MR. MCCOY, of Kansas—It does seem to me, Mr. President, that this measure proposes to vest too much power in one man, and besides that, in view of the laws of some of the states, it would be practically impossible to carry it out. In Missouri, for instance, it is provided that each county shall appoint three commissioners, who shall constitute a board of cattle inspectors, whose duty it shall be to inspect cattle when presented, and, if found healthy, to admit them.

The appealing from the decision of one of these commissioners would, if such a proposition as the one proposed were enacted into a law, be almost ruinous to the drover. The consequence would be that very many of these officials, knowing the unwillingness with which an appeal would be taken, would levy black-mail on the cattle passing through their district, whether they were healthy or not.

Or, if the one-man power principle should prevail, no means of appeal being provided, every one who knows anything about our western country can but see how great a detriment it would work to the bringing forward of our cattle. That man would have the power, as we express it west, to make every drover bringing in

cattle for inspection, "come down" a little, or very politely inform him that his cattle are diseased. Time and again, I have heard drovers coming through the southwest say, in being asked how they succeeded with these commissioners—"Well, I presented a few *green* arguments to them, and it was the easiest thing in the world for them to see that my cattle were healthy."

I tell you, gentlemen, this measure proposes to put too much absolute authority and power in the hands of one man, especially when no means of appealing from his decision are provided.

MR. BARRETT, of Missouri—There certainly, Mr. President, ought to be some provision by which the cattle-drover may be protected. If you provide for an appeal from the decision of an assistant commissioner to a commissioner or to several commissioners, that functionary is going to be very careful how he stops cattle, and if he does stop them when they are not diseased, in order that he may gain a certain sum of money thereby, he will most certainly lose his position, when the case in which he has so conducted himself comes to be investigated.

I do not wish to detain the convention, Mr. President, and am not anxious to make any speech.

MR. HAMILTON, of Pennsylvania—I am in favor, Mr. President, of letting each legislature decide this matter for its respective state. For instance, you here in Illinois can appoint an inspector to inspect an inspector and another inspector to inspect the two inspectors. [Laughter.] Some gentlemen seem to think that inspectors are to be bribed, all over the country; if that does turn out to be the case, then they will all be a set of infernal rascals—and that is something that I do not believe will be the case.

MR. PIPER, of Illinois—There is one point, Mr. President, that strikes me, which is just this. I do not think that any Illinois man is going to bring in diseased cattle—even try to get them passed—when he knows that even if he succeeds in doing both of those things, he has still got the eastern inspections to face.

MR. REYNOLDS, of Illinois—I offer the following, Mr. President, as an amendment to the amendment of the gentleman from Missouri (Mr. Smith):

"In case the decision shall be against the inspector, the state shall indemnify the owner for reasonable damages and expenses."

MR. SMITH, of Missouri—I accept that amendment, Mr. President.

MR. GOULD, of New York—Mr. President, I call for a division of the question on the amendment.

The motion prevailed.

THE PRESIDENT—Gentlemen, you will now vote on the first branch of the amendment, which is, “appeals shall be allowed to a majority of the commissioners in all such cases.”

The amendment was adopted.

Ayes 19; nays, 12.

THE PRESIDENT—You are now about to vote upon the second division of the amendment, which is as follows:

“In case the decision shall be against the inspector, the state shall reasonably indemnify the owner for reasonable damages and expenses.”

The amendment was lost upon *viva voce* vote.

The proposition was then adopted as amended.

The secretary read the third section of the second subdivision, as follows:

3. No train shall be allowed to proceed unless the animals contained therein have been supplied with food, water and rest within twenty-four hours next preceding the time of such inspection.

MR. POOLE, of Indiana—I move that it be adopted.

The motion prevailed.

The secretary read the fourth section of the second subdivision, as follows:

4. All animals shall rest and have access to food and water for twenty-four hours, after having traveled for a similar period.

MR. POOLE, of Indiana—I move that it be adopted.

The motion prevailed.

The secretary read the fifth section of the second subdivision, as follows:

5. The railroad companies shall provide suitable yards for feeding, watering and resting the animals traveling on their trains, and for quarantine purposes, which shall be kept in as cleanly and wholesome condition, to the satisfaction of the commissioners.

MR. POOLE, of Indiana—I move its adoption, sir.

The motion prevailed.

The secretary read the sixth section of the second subdivision, as follows :

6. Each train, on leaving its point of departure, shall have certificates signed by an assistant commissioner, which shall certify that all the animals therein were in a healthy condition at the time of its departure, and also the exact time of its leaving ; and such certificates and indorsements thereon of the time of resting and the time of departure of the train at subsequent resting and feeding places shall be exhibited to the proper authority whenever required.

MR. PCOLE, of Indiana—I move its adoption, sir.

The motion prevailed.

The secretary read the seventh section of the second subdivision, as follows :

7. Proper penalties should be inserted to prevent the bribery of officers charged with the execution of these provisions.

MR. POOLE, of Indiana—I move its adoption, sir.

The motion prevailed.

The secretary read the eighth section of the second subdivision, as follows :

8. Proper penalties should also be provided for those who interfere with or resist the officer, charged with the execution of these provisions.

MR. POOLE, of Indiana—I move its adoption, sir.

The motion prevailed.

The secretary read the third general division, as follows :

3. WHEREAS, A malignant disease among cattle, known as Spanish fever, has been widely disseminated by the transit of Texas and other southwestern cattle through the western and northwestern states, during the warm season of the year, occasioning great loss to our farmers, and possibly endangering the health of our citizens therein,

Resolved, That this convention earnestly recommend the enactment of stringent laws to prevent the transit through these states of Texan or Cherokee cattle from the first day of April to the last day of October, inclusive.

MR. EARLE, of Indiana—I move to amend, Mr. President, by inserting "first" instead of "last" day of October.

MR. McMILLAN, of Ohio—And I move to amend, Mr. President, by striking out the "first day of April" and inserting the "first day of March."

GEN. PATRICK, of New York—I would like to say a word, Mr. President, regarding this question of time. As to how early in the season it might be wise to admit cattle, I am not able to say,

but I do know that on the twenty-fourth day of November, we found in the city of Buffalo, while *en route* for this place, two of the sickest and most thoroughly diseased Texas steers I have ever seen—one of which died within an hour or two, and the other of which would have died within twelve hours, had it not been killed for the purpose of examination. This happened after we had had heavy frost and some snow. I think, as we know from Mr. Hill's statements, the disease still exists in this state.

MR. CHRISTIE, of Canada—If I mistake not, Mr. President, it has also been stated that this disease is still prevailing in St. Louis.

MR. POOLE, of Indiana—I am told, Mr. President, by gentlemen who had much more experience in this matter than I have had, that they are perfectly satisfied there is no danger at all after the first of October, by which time, as a general thing, we, here in the west, have heavy frost. It is not expected that cattle brought here at that time would be shipped—they could not be, on account of their poor condition; but the idea is to keep them here all winter, feed and graze them the next season, and the next fall send them to a market. There may be isolated cases of the disease, and some cattle may die after the first of October. And, as regards the statement of Mr. Hill, I understand him to say that the animals referred to died from the effect of disease imported by cattle in the hot season, and not from cattle brought this fall—and he distinctly states that to be the fact. His remarks, therefore, furnish no data for supposing that cattle bring any disease among us as late as October.

GEN. PATRICK, of New York—My impression is, Mr. President, and I will state that it is so with another of our commissioners (Mr. Gould), that the cattle we saw in Buffalo were from a herd just purchased and brought forward from Kansas.

We, of course, understand the propriety of bringing cattle into this state at as early a day as possible, for the reasons already stated, but some safeguards certainly should be thrown around the trade, by which the shipment of such cattle may be prevented.

MR. CHRISTIE, of Canada—Mr. President, Mr. Hill's statement, as I understand it, was this—that those steers died within eight days. What does that statement prove? It proves just this, that if they had not been in contact with Texas cattle since the cattle belonging to the same herd died (and I understand that to be Mr. Hill's statement), that those cattle were contaminated by the na-

tive cattle of the same herd, and after the period necessary for the second incubation of the disease had elapsed, took that disease and died. This one instance sufficiently proves the impropriety of allowing cattle to come in at an earlier date than is specified, because what has happened in Illinois may happen in Kansas. It also establishes the fact that the disease may exist up to the twenty-fourth day of November—the meeting with it at Buffalo at that time, has already been spoken of—and for all we know, it may exist later still.

DR. JOHNS, of Illinois—So far as I am advised, Mr. President, cattle in the condition of those met with at Buffalo, have never imparted the disease under any circumstances, for as we learned the history of this disease, it has never been communicated except by cattle in apparent health. We have no testimony that those cattle had imparted the disease (in fact, the universal testimony is, that it is not communicated after frost), though they may have had and probably did have it.

Mr. Hill has not stated what the cattle spoken of by him died from, and those gentlemen who jump at the conclusion that they died from Spanish fever, have very slight grounds for their belief. In the west, nothing but a post-mortem examination can determine as to whether a certain animal has died of this Spanish fever—and it is not stated that these steers were so examined.

MR. EARLE, of Indiana—I hope, Mr. President, that gentlemen will consider well, before casting their vote, for it is of the utmost importance that these cattle should be brought in here at as early a day as possible, in order that they may rest before cold weather, get well over their bruises and take their winter feed properly. If they cannot be brought in until November or December, they become so sore and are in such bad condition that they will not take their feed and go through the winter as they ought.

MR. GOULD, of New York—Mr. President, our experience in New York shows, that it will not be safe to admit cattle into that state at as early a period as is proposed by the amendment. As was stated by my friend (General Patrick), this disease has manifested itself as late as the twenty-fourth of November, and I may state in addition to that, that in the county of Orange, on the twenty-sixth day of October, a native cow died, which had taken the disease from another native animal. There are cows in the state of New York which could not be purchased for fifteen thou-

sand dollars; there are also cows and bull's in Canada that could not be purchased for a very large sum, and in both sections there is a large amount of very fine stock. It behooves us, therefore, to be exceedingly careful how we expose our herds to the ravages of this fearful disease.

But why cannot we change this proposition, so as to admit these cattle into Illinois and the grazing states (as they seem to desire), on the first day of October, while we substitute the first day of November for the province of Canada, the state of New York, and the states lying east of New York. It seems to me that by agreeing upon that, we can act harmoniously.

MR. MOORE, of Missouri—If that proposition suits New York, Mr. President, it suits Missouri. Illinois knows what she wants, but we in Missouri don't wish to have these animals brought through that state at so early a day as some gentlemen propose.

DR. MILES, of Michigan—While I am anxious, Mr. President, to facilitate the transmission of cattle to eastern markets, it is of the utmost consequence that we protect ourselves; but as Missouri, Kansas and other states lying farther west, are as much interested in this matter as we are and understand it better, I would like to hear from gentlemen, representing these states, in regard to the matter.

MR. MCCOY, of Kansas—Mr. President, through this portion of Illinois, a large portion of Missouri and Iowa, and also a portion of Kansas, the farmers rely upon disposing of their products by preparing fattening stock for the eastern markets.

Again, sir, there is no proposition embodied in this report whereby cattle from the southwest, even after being wintered, may be moved to market, notwithstanding there are to-day, coming into Illinois, by the Union Pacific Railroad, ten thousand head of southwestern cattle, which are to be fattened this winter upon the pastures of Illinois particularly, and of Indiana, in part—a large per cent. of which will be ready to go to market in July. But as I have said, there is in the proposition no provision whereby those cattle, when fattened, may be permitted to go to market.

Again, do you propose, gentlemen, to prohibit the people of the southwest from coming to market at all—do you propose to make recommendations here to-night, the practical effect of which would be to exclude us utterly and completely? I believe every gentleman, in his own heart, would answer "no." But, I declare to you

that such will be the practical effect of these propositions if embodied and enforced as laws.

That is all that I have to say, gentlemen; you can do as you like, but you must take the responsibility.

MR. POOLE, of Indiana—This resolution, Mr. President, is not such a one as will suit the states of New York, Illinois or Indiana, for this reason. That resolution says: "Texas cattle shall not be admitted from the first day of April to the last day of October." Its terms are broad enough to prevent from being shipped to market, cattle which have been wintered and fattened here. Some discrimination must be made, specifying more particularly what animals are meant.

THE PRESIDENT—The understanding of the resolution by the chair is, that cattle shall not be introduced from the southwestern country into these states.

MR. POOLE—But it does not say so, sir, and any such construction must be an inference only.

By the way, in regard to those cattle at Tolono, I do not think that case goes, by any means, to show that those animals took the disease from the native cattle.

MR. CHRISTIE, of Canada—How do you account for it, sir?

MR. POOLE—In the same way as you, sir, as a common-sense man, would account for a great many contagious diseases through the United States, both among the human family and animals—that is, that some persons will be affected by a disease very quickly, while in others, it will linger and linger for months, before breaking out. I leave it to any medical or scientific man, if that may not be the case here, for these cattle ran in the same places and over the same trails as did those who took it so early and died. They may have become gradually infected with the disease, and the poison have worked very slowly in the system, but in the course of time, have sickened and died from it.

MR. CHRISTIE, of Canada—The simple answer to all that, as it seems to me, Mr. President, is, that, as yet, we have no evidence showing that the time necessary for the incubation of the disease is longer than ten weeks.

MR. EARLE, of Indiana—When did the Texas cattle that died in Buffalo, take this disease?

MR. CHRISTIE—I cannot say, sir. They may have come directly from Texas, but that is an answer, so far as the picking-up of their

pasturage in the same field where the Texas cattle had pastured, is concerned.

And then, again, according to the gentleman's own statement, a severe frost will kill this disease.

MR. POOLE, of Indiana—We all know, Mr. President, that both animals and people freely take contagious and infectious diseases at different periods, as for instance, I have known some animals to take this Texas cattle disease in three weeks, others to have been seven weeks in contracting it, and others probably ten, and this being so, might not the periods be still farther extended?

DR. MILES, of Michigan—The gentleman speaks, Mr. President, of the time required for taking this disease. I should like to know if he means after the exposure of the animal, the period of incubation, or the time that the native cattle may run with the Texas cattle without taking it.

MR. POOLE—I meant, Mr. President, from the time the animal was exposed, until it exhibited any sign of the disease.

DR. MILES—It is said, Mr. President, that native cattle may run with Texas cattle a long time without contracting the disease—that when separated, some have not taken it at all, while others which remain will have it.

MR. POOLE—They may, or may not. Mr. Eaton will tell the gentleman that some never take it.

I have certain knowledge, sir, of some native cattle that have run with Texas cattle the whole summer, without contracting any disease at all. So also, I know, that some men have passed into a small-pox room and staid there a week without contracting that disease; while I know others who have taken it a long time afterwards.

And so, in regard to these steers that have been spoken of. My idea is that they actually imbibed a small amount of this disease at the same time that these other cattle did, but that it remained in their systems in a very small speck, so to speak, until gradually extending, they became, after quite a long time, infected with it, and so died.

MR. CHRISTIE—Four months.

MR. POOLE—Yes, sir; that seems to me not at all improbable, Mr. President, in view of the statements we have already had, to the effect that cattle placed in pasture where Texas cattle had run and

pastured the winter before, had, the next season, taken this disease and died.

I will say, however, that after careful inquiry and diligent search of reports, I have never yet heard of or seen recorded a single case of Texas cattle fever occurring in Texas or along the gulf coast. That being so, it seems to me that the whole history of this disease may be summed up in this—that the abuse of these cattle, and the over-driving of them while on their way, by being crowded in the cars and steamboats, and forced along in that brutal manner that is too well known, breeds an infection in the system. That is my idea of this matter.

We are willing, as western men, to divide the time, and make it, say the fifteenth of October.

The amendment was accepted.

MR. REYNOLDS, of Illinois—It seems to me, Mr. President, that this matter can all be arranged if a blank is left for the time. Each state can settle this matter for itself. By adopting this course (especially in view of the fact that you have appointed a commission which certainly ought to be able to fix upon a proper time) no harm can be done, and this convention need not be troubled farther.

MR. CHRISTIE, of Canada—The adoption of that suggestion, Mr. President, would cause all the proceedings of this convention to be a perfect nullity.

I wish to call the attention of the convention to the laws of the states west of this. Missouri says: "Nothing contained in this act shall be so construed as to prevent the transportation of such cattle through this state, on railroads or steamboats, or to prohibit the driving through any part of this state of such Texas or southern cattle as have been wintered at least one winter north of the southern boundary of the state of Missouri."

Kansas enacts: "No person or persons shall be allowed to drive or cause to be driven into the state of Kansas, or through any part thereof, any cattle from the Indian territory south of Kansas, or from the state of Texas, that may have come into the state between the first days of March and December of each year."

The law of the state of Illinois is entirely prohibitory. The law of Kentucky was: "It shall be unlawful for any person, after this act takes effect, during the time between the first day of March and the first day of November, in any year," etc. That

law was amended this year, to read as follows: "That an act approved February 28, 1867, entitled 'an act to prohibit the importation and sale in this commonwealth,' be, and the same is so amended that it shall be lawful to import such cattle into the state at any time between the twentieth day of November and the first day of April in each year."

Those are the laws fixed by the legislatures of several of the states that have suffered very much from this disease, and it does seem to me that they furnish some reliable data by which this convention may be guided.

I cannot believe that we have come together from such long distances, and at, in many cases, so much inconvenience, to pretend to thoroughly discuss the series of propositions for the purpose of controlling this disease, and then to, after all, acknowledge to the world that we knew nothing at all about it, and that cattle may be admitted at any time during the year.

MR. McMILLAN, of Ohio—It seems to me, Mr. President, that we should act on the safe side, regarding this matter. It does not appear that there really is not danger, more or less, at any time of the year, and if three or four months are set apart during which these cattle may be brought in, I do think that all is conceded that should be asked for, and that we are entitled to demand for the rest of the year such protection as our home interests require.

I therefore move to amend so that the dates shall read from "the first of March to the first of November," and on this I move the previous question.

THE PRESIDENT—Gentlemen, you have heard the motion, will you sustain the call for the previous question?

["Call the roll—call the roll."]

THE PRESIDENT—The secretary will call the roll.

Accordingly the roll was called.

The motion prevailed.

Yeas 24—nays 7.

THE PRESIDENT—Gentlemen, you will now vote on the motion of the gentlemen from Ohio (Mr. McMillan), that Texas cattle shall be excluded between the first day of March and the first day of November.

The motion prevailed.

MR. McMILLAN, of Ohio—I move, Mr. President, that the original proposition, as amended, be now adopted.

THE PRESIDENT—Mr. Secretary, you will please read the last paragraph of the report submitted by your committee.

The secretary read as follows :

Resolved, That the interest of the community require the enactment of laws making any person responsible for all damages that may result from the diffusion of any dangerous disease from animals in his ownership or possession.

MR. POOLE, of Indiana—I move, sir, that it be adopted.

The motion prevailed.

MR. CHRISTIE, of Canada—I move, Mr. President, the adoption of the report as a whole.

The motion prevailed.

MR. HAMILTON, of Pennsylvania—Mr. President, I offer the following resolution :

Resolved, That the governor of Illinois be requested to have printed and forwarded to the governors of the several states here represented, and to each delegate, a copy of the propositions just adopted.

I offer this resolution, Mr. President, in order that these drafts of proposed laws may be transmitted to the governors of the respective states who have sent us here, and be by them embodied in their “messages,” as I know some, at least, desire to do.

MR. GOULD, of New York—I must confess, Mr. President, that it does not seem to me the most delicate thing in the world for representatives of the different states to request the governor of Illinois to take upon himself all the trouble and expense that will be incurred if the resolution is adopted.

DR. CLENDENNIN, of Ohio—That is exactly my view of the case, Mr. President; and besides, I presume that the chairman of each delegation will report to the governor of his own state such of our proceedings as may be by him deemed necessary.

MR. CHRISTIE, of Canada—I have not the slightest idea, Mr. President, that the governor of Illinois will regard such a request from this convention at all out of place. I renew the motion for the adoption of the resolution.

The motion prevailed.

MR. REYNOLDS, of Illinois—I move, Mr. President, that we do now adjourn to nine o'clock to-morrow morning.

The motion prevailed.

So the convention adjourned.

THIRD DAY.

THURSDAY, *December 3, 1868.*

The convention met, pursuant to adjournment.

DR. SNOW, of Rhode Island—Mr. President, the committee appointed on the subject of a name whereby the disease under consideration may be designated, have instructed me to report the term "Texas cattle fever," as being, upon the whole, a designation which will be best understood, and the most acceptable to the people.

MR. EARLE, of Indiana—I move, Mr. President, that the report be received and concurred in.

The motion prevailed.

MR. POOLE, of Indiana—Mr. President, as the propositions adopted by us yesterday, for the purpose of being enacted into laws by the legislatures of the respective states, make no discrimination between cattle directly from Texas and those which have been wintered and prepared here for market, I offer the following resolution, as explanatory of the interpretation which this convention gives them. It is as follows:

Resolved, That in the resolution passed by this convention in regard to Texas and south-western cattle, and the time of their being admitted into the different states, it was not intended to mean or be construed to include Texas or south-western cattle that had been wintered in any of the states, except in Texas, the previous winter.

I move the adoption of that resolution, sir.

The motion was seconded.

DR. MORSE, of Missouri—I do not think, Mr. President, that there is anything particularly wrong about this resolution, but there may be; and as at least one-third of the convention which adopted the propositions of yesterday (of one of which this resolution is said to be explanatory) have already left the city, it would be manifestly unfair for us to adopt this.

DR. TOWNSEND, of Iowa—I quite agree, Mr. President, with the gentleman from Missouri (Dr. Morse) that it would hardly be fair, now, to add any new matter to what has already been passed upon by this convention. I hope the gentleman will not press the resolution.

MR. POOLE, of Indiana—It was distinctly stated last night, Mr. President, if I am not very much mistaken, that the proposition of which this resolution is intended to be explanatory, was not intended to include cattle wintered in the western or north-western states previous to their being sent to market.

THE PRESIDENT—That would be the understanding of the chair.

MR. POOLE—Exactly, Mr. President; and I am satisfied that there was not a member of the convention but who understood it in the same way.

MR. EARLE, of Indiana—Allow me to state, Mr. President, that I personally spoke to the chairman of the Canadian commissioners (Mr. Christie) in regard to this matter. I was informed by him that they interpreted the proposition of which this resolution is intended to be explanatory, exactly as the chair does; and I know that to be the sentiment of the convention at large.

I hope gentlemen will not embarrass what we have already done by voting down this resolution, for its adoption is really necessary to a proper understanding of our proceedings by those into whose hands they may hereafter come.

DR. MILES, of Michigan—This same matter was broached at our last session, Mr. President, and it was admitted on all hands that there was no necessity of adopting anything of an explanatory nature. I think, myself, that there can be no misunderstanding in regard to it, as it now stands; and I do hope that this fragment of the convention will not attempt to explain what the whole convention considered sufficiently clear.

MR. CHADBOURNE, of Wisconsin—I think, Mr. President, that it is unfair for so small a number of us to change what was last night adopted by the whole convention. I voted on the question of time during which Texas cattle should be admitted, in accordance with what seemed to be the desire of the states mostly interested; though my own judgment was, that, in some of the states at least, cattle might be introduced by the 1st of October.

But at any rate, the whole convention having recommended a certain measure for adoption by the state legislatures, I do not think that so small a number as are now present should meddle with the subject further.

DR. RAUCH, of Illinois—Regarding the time at which Texas cattle should be admitted, Mr. President, I quite agree with the

gentleman from Wisconsin (Mr. Chadbourne), for I am satisfied from the experience of the past season that they can be brought to Chicago by the first of October, without any danger. But I scarcely think it is necessary, or that it was expected, that the proposition under discussion should apply to Texas cattle wintered here, and fattened during the next summer for the eastern markets.

THE PRESIDENT—I would simply remark, gentlemen, that at Buffalo, of which point I have supervision, and where there are, say, two or three car loads of cattle arriving daily, it is one of the most difficult things in the world for the commissioners to ascertain whether those cattle have been in this western country a year or a month.

MR. POOLE, of Indiana—I merely offer this resolution, Mr. President, for the purpose of explaining a proposition which, as it now stands, might be considered by one person reading the reports of our proceedings to mean one thing, while another would construe the language to mean exactly the opposite thing. It seems to me exceedingly important that when the legislatures of the respective states consider our propositions for the purpose of enacting them into laws, there should be no possibility of misunderstanding on this point—that it should be distinctly understood that, between the dates specified, we did not mean to exclude cattle that had been here a year or two, undergoing preparation for market.

I believe it is conceded that that was the understanding of the whole convention upon adopting this proposition at the last session. That being so, there can be no unfairness in the adoption of this explanatory resolution by those of us now present.

MR. GOULD, of New York—I hardly think, Mr. President, that the terms of this resolution are sufficiently guarded, but the general idea of it is eminently fair and proper, for we certainly do not wish to retain for a long time, in this western country, cattle that have been thoroughly disinfected.

When Texas cattle are brought to the frontier of any state, the commissioners and assistant commissioners thereof must be relied upon to determine any question of fraud with regard to the place of their importation and the time which they have spent there, and our people should not be deprived of a large amount of ex-

tirely unexceptionable beef through any ambiguity in our proceedings.

I cannot believe, Mr. President, that the important stock-growers and forwarders of the state of Illinois, or of any others of the western or northwestern states, would deliberately swear to a lie regarding the length of time their cattle may have spent in their section subsequent to their leaving Texas, and prior to their being forwarded to a market. I cannot believe it, sir, in face of the fact that as soon as Mr. Alexander was apprised of the diseased condition of his cattle he went around to gentlemen who had bought a portion of them (and that, too, without waiting for them to come to him), paid back to them the purchase money, and submitted, in the first instance, to a loss of twenty-seven thousand dollars. I do think that as long as there are men in the western country who pursue such a course as that, we may venture to take their affidavits with regard to anything concerning their cattle.

I should feel perfectly satisfied, as far as New York is concerned (and I believe other states will feel perfectly satisfied), with a proper affidavit, from an honest man, that his cattle have been for a certain time, say ten months, in the state of Illinois, for instance, being fed and fattened for a market. I should therefore be in favor of the resolution, with some little addition, like this, for instance, "provided that proper proof should be afforded," etc.

MR. POOLE, of Indiana—I accept that amendment, Mr. President.

MR. EMERY, of Illinois—It seems to me, Mr. President, that we shall find the result of this to be that all the stock of the state will be old stock.

MR. GOULD, of New York—I do not quite agree with the gentleman, Mr. President, because, as the proposition now stands, not a single Texas animal can be received after the first of March. The point is this, that there are now in this state, for instance, a vast number of cattle which will be in proper condition to send to market in May or July, but which are excluded by the terms of the resolution, as it now stands, and I do think that some provision should be made by which that difficulty can be avoided. It seems to me that it is nothing more than fair dealing with our western friends—who have so generously endeavored to meet with our wants, that I, for one, wish to show a similar spirit of amity in protecting their interests.

DR. TOWNSEND, of Iowa—I wish to say just a word or two more upon this subject, Mr. President. Last night, when this matter was up for consideration, several of us desired an adjournment, in order that this and other points might be deliberately acted upon. The convention did not adjourn, but its work was then supposed to be finished. And now that we have committed the very common folly of putting our work through in a hurried manner, we ought to take the consequences, and not, in this way, endeavor to perfect measures which ought to have been more carefully considered.

Again, the fact that we have this large amount of cattle in Illinois, is not going to embarrass the owners of them at all, for our resolutions and propositions are not the law of the state yet, by any means, and when they are enacted into laws the legislature will doubtless provide the necessary safeguards and explanations. I therefore do not think that this resolution is at all necessary.

MR. HAMILTON, of Pennsylvania—I was at first inclined to favor this resolution, Mr. President, but now I shall vote against every proposition to amend what was done last night. First, because I do not think that so small a number of the convention as are now present, should meddle with what was passed upon by the whole convention. And secondly, because the legislatures of the several states will undoubtedly remodel our propositions and resolutions in such a manner as will best meet the wants of their constituents.

GEN. PATRICK, of New York—It strikes me, Mr. President, that practically, this thing takes care of itself; for nearly, if not quite all of these cattle spoken of will have gone to market before the several legislatures will have taken action on our recommendations.

Besides that, the expression of opinion regarding the interpretation of this particular resolution, and the views in reference to it are so harmonious, that I do not think our intention can be misconstrued.

It does seem to me, too, that it will be acting unfairly towards the large majority of this convention—who have gone away supposing that the work of this convention was practically completed—to attempt to re-open this matter.

MR. GOULD, of New York—I offer, Mr. President, the follow-

ing, and move that it be inserted after the excluding paragraph in the original resolution as reported by the committee: "*Provided*, that it may be lawful to receive at any time cattle which have been ascertained, by proper proofs, to have been fed in any state north of Arkansas for a period of ten months next preceding the time of passing the frontier of any state."

MR. POOLE, of Indiana—I do not accept, Mr. President, the proposition of the gentleman from New York (Dr. Gould) for this reason: If the amendment should be adopted by the convention, and be promulgated as law by our next legislature, it would preclude our cattle from going to market during the [summer, as scarcely any that are now being and that will, during this winter, be prepared for market, will then have been within the state so long a time as ten months.

MR. GOULD—Say eight months, then.

MR. POOLE—As this resolution has occasioned a great deal of discussion, Mr. President, and has excited some considerable opposition upon one ground and another, I now withdraw the resolution and move that we adjourn *sine die*.

MR. EARLE, of Indiana—Then, Mr. President, I offer the following:

Resolved, That all Texas or southwestern cattle that have been wintered in the state, shall be considered as native cattle.

MR. GOULD, of New York—I offer this as an amendment, Mr. President: "And that have been ascertained by proper proofs to have been wintered."

MR. EARLE—I accept that amendment, Mr. President. I move that the resolution be adopted as amended.

MR. CARTER, of Maryland—I offer the following resolution, Mr. President, and move its adoption:

Resolved, That the thanks of this convention are eminently due, and are hereby tendered to the Hon. Lewis F. Allen, for the able, courteous and impartial manner in which he has discharged the arduous duties of president of this convention.

Gentlemen, you have heard the resolution. As many as are in favor of its adoption, will please so signify it by saying aye.

The resolution was unanimously adopted.

MR. CARTER, of Maryland—Mr. President, I offer the following resolution and move its adoption:

Resolved, That the thanks of this convention are hereby tendered to the Governor and cattle commissioners of the state of Illinois, and the citizens of Springfield, for the kind and liberal hospitality extended the members of the convention during our sojourn in their midst.

The resolution was unanimously adopted.

MR. CARTER, of Maryland—I offer the following, Mr. President :

Resolved, That the thanks of the convention are hereby tendered to Hon. Joseph Poole, of Indiana, temporary chairman, and the officers of the convention, for their efficient discharge of the duties of their respective positions. Also, to Dr. Morean Morris, of New York city, and Dr. John H. Rauch, of Chicago, Illinois, for their valuable contributions to the scientific information of the convention.

The resolution was unanimously adopted.

DR. CLENDENNIN, of Ohio—Mr. President, I offer the following resolution :

Resolved, That the secretaries of this convention, together with the members from this state—who shall be appointed by the chair—be constituted a committee to superintend the printing and publication of the proceedings of this convention.

The resolution was unanimously adopted.

THE PRESIDENT—I appoint Messrs. Rauch and Emery, of Chicago, and Mr. Reynolds, secretary of the state agricultural society, to act in connection with the secretaries, in preparing for publication a report of our proceedings.

DR. MILES, of Michigan—Mr. President, I move we take from the table the resolution in regard to the appointment of a commissioner for the purpose of investigating the Texas cattle disease.

The motion prevailed.

DR. MILES—That resolution, as originally offered, Mr. President, was to memorialize "congress." That was stricken out and "war department" inserted. Then, a substitute was offered, authorizing this convention to appoint a commissioner. The whole matter was laid upon the table. The first question, therefore, would be upon the substitute, which I hope will be voted down, as it is ascertained that we cannot command the services of those scientific gentlemen, who were then supposed to be available. We need information at once, and I am satisfied that we can get it in the best manner, from the war department, through its detailing scientific gentlemen to proceed to Texas, and there collect everything necessary to supplement the investigations

already made in New York. I hope, therefore, that the substitute will not prevail; but that the original resolution, as amended, will be adopted.

DR. CLENDENNIN, of Ohio—Inasmuch, Mr. President, as it would be of no use to memorialize the war department, I move that we reconsider the amendment, whereby, in the original resolution “congress” was stricken out and “war department” inserted.

The motion prevailed.

DR. CLENDENNIN—I now move that the amendment be laid upon the table.

The motion prevailed.

GENERAL PATRICK, of New York—Mr. President, I suggest this, “that congress be requested to make an appropriation, to be expended under the direction of the war department,” etc. I do not offer that as an amendment, though I think the adoption of it, as such, would secure all that we desire.

DR. CLENDENNIN—I will accept that, Mr. President, as an amendment. I move the adoption of the resolution as amended.

The motion prevailed.

THE PRESIDENT—I appoint, to serve on that committee, Messrs. Clendennin of Ohio, Rauch of Illinois, Gould of New York, Miles of Michigan, and Townsend of Iowa.

DR. CLENDENNIN, of Ohio—Mr. President, as we all appreciate the importance of obtaining more general and accurate knowledge of the diseases incident to our native stock, I offer the following:

Resolved, That the delegates of the several states here represented shall feel themselves called upon to represent to the legislatures of their respective states the necessity of adopting some measures for the collection and diffusion of more accurate knowledge relative to the habits and diseases of our domestic animals.

In the west, Mr. President, we have no institution specially set apart for these purposes, though I am aware that in New York you have. I believe that such a resolution as I have offered, emanating from this convention, will receive intelligent and favorable consideration, I move its adoption.

The motion prevailed.

MR. REYNOLDS, of Illinois—I offer this resolution, Mr. President:

Resolved, That when the committee on publication shall have prepared the report of the proceedings of this convention, they be and hereby are requested to forward the copy thereof to the Governor of Illinois for publication.

MR. GOULD, of New York—Though this resolution is offered, Mr. President, by a member from Illinois, I feel very delicate about asking the governor of this state to incur this expense on behalf of the convention, and I must confess that it does not seem to me just right to throw the whole burden, at least, upon Illinois.

MR. REYNOLDS, of Illinois—I am authorized to say, Mr. President, that Governor Oglesby is willing to receive the report as indicated in the resolution, and further, that he will see the proceedings published and distributed to the members of the convention, the heads of states and wherever else may seem most desirable.

I move the adoption of the resolution.

The motion prevailed.

MR. HAMILTON, of Pennsylvania—Mr. President, I move that we do now adjourn, *sine die*.

THE PRESIDENT—Gentlemen, before putting that motion you will permit me to offer you my congratulations upon the successful prosecution and termination of your labors. You have met under circumstances of great responsibility, and I must say, of somewhat great public excitement; you have discharged your duties, I think, faithfully and well.

To the Governor of the State of Illinois, we are under great obligations for the hearty zeal with which he co-operated with the first inception of this movement, which he has carried out with so much earnestness and good will, and we cannot also but feel greatly obliged to him that he has by his presence added so much to the dignity of this convention through being daily with us and giving to us his countenance and approbation.

For myself, gentlemen, I feel very highly honored at being elected to preside over a body representing so much wealth and integrity of character as is combined in this convention, wherein so much wisdom and so much executive ability are required at the hands of its presiding officer.

But, so far as regards myself, personally, the best thing that I can do is to tell a story, as was occasionally the habit of the lamented Lincoln.

Some four years ago, before that best of men was foully murdered, I, as an old acquaintance and a great admirer, called to see him. *I did not*, gentlemen, wish to ask him for any office, but merely looked in on him, socially. I congratulated him on the success with which he had managed the affairs of the government, when he, with all the simplicity and artlessness of a child, replied, "Mr. Allen, I have done just as well as I knew how."

Gentlemen, I have done just as well as I know how, while presiding. I feel truly gratified at the confidence you have placed in me and at the hearty vote of thanks you have accorded me. Wishing each and all the utmost measure of prosperity (great applause), I bid you farewell.

The convention now stands adjourned, *sine die*.

APPENDIX.

DR. RAUCH—I find, since my return from the meeting of the Cattle Convention, that I did not place enough importance upon the results of my treatment of cases of Texas fever. The first animal that showed marked signs of the disease, that recovered, was the one I treated, also that the only ones in a certain section of the Vth ward that are now living, and were exposed, are those that I had treated. I find also that a number of the cases that I supposed under treatment, were really not, as my directions had not been carried out. For the purpose of throwing more light on this question, I append the weights of livers and spleens of Texas cattle that had been fed at Broadlands since June, and also of cattle that were brought direct from Texas *via* Galveston and New Orleans, that were slaughtered here a few days ago. Both lots were fat. I procured the blood, bile, and urine of one of those that had been fed at Broadlands—also, from a steer that came direct from Texas—and submitted them to S. A. Briggs, Esq., an accomplished microscopist, who reports that no trace of the spore or plant can be found.

TEXAN CATTLE—FROM BROADLANDS—ALEXANDER'S.

Dec. 23, 1868.

Spleens and Livers..	4	9	3 $\frac{1}{2}$	11 $\frac{1}{2}$	3 $\frac{1}{2}$	12	3	12	3	11 $\frac{1}{2}$	4 $\frac{1}{2}$	12
"	3 $\frac{1}{2}$	12	4 $\frac{1}{2}$	12	3	9	4 $\frac{1}{2}$	14	4	11	3 $\frac{1}{2}$	11 $\frac{1}{2}$
"	3	9	3 $\frac{1}{2}$	13	3 $\frac{1}{2}$	10	4	14	4	9	3	9
"	3 $\frac{1}{2}$	10	4	12	2 $\frac{1}{2}$	12	3	12	3	12	4	8
"	2 $\frac{1}{2}$	12	3	12 $\frac{1}{2}$	4	8	4 $\frac{1}{2}$	11	3 $\frac{1}{2}$	9 $\frac{1}{2}$	5	13
"	4	8	5	14	3	16	3 $\frac{1}{2}$	13	3 $\frac{1}{2}$	8	2	12
"	3 $\frac{1}{2}$	16	5 $\frac{1}{2}$	13	3	11	3 $\frac{1}{2}$	11 $\frac{1}{2}$	4	14	2 $\frac{1}{2}$	9
"	3	11	4	8	2	9	4 $\frac{1}{2}$	12	4	13	4	10
"	3	9	4 $\frac{1}{2}$	8	3 $\frac{1}{2}$	12	3 $\frac{1}{2}$	13	3	11 $\frac{1}{2}$	3	9
"	2	11 $\frac{1}{2}$	4	9	3	10	4	12	3 $\frac{1}{2}$	13 $\frac{1}{2}$	2 $\frac{1}{2}$	8
"	3	11 $\frac{1}{2}$	3	12	3	14	3	11 $\frac{1}{2}$	3	14	3	14
"	3	4	3	11 $\frac{1}{2}$	3	8	2	9	3	12	3 $\frac{1}{2}$	13
"	4	9	3 $\frac{1}{2}$	14	3	12 $\frac{1}{2}$	3 $\frac{1}{2}$	12	4	11	4	9 $\frac{1}{2}$
"	3	12	3	12	3 $\frac{1}{2}$	9 $\frac{1}{2}$	3	10	3 $\frac{1}{2}$	13	4 $\frac{1}{2}$	11
"	3 $\frac{1}{2}$	9	3	13	4	11	3	14	3	11	3	12
"	4	11	4	16	4 $\frac{1}{2}$	11	3	8	4 $\frac{1}{2}$	12		
"	4 $\frac{1}{2}$	11	4 $\frac{1}{2}$	15	3	11	3	12 $\frac{1}{2}$	4	13		
"	2	11	4	13 $\frac{1}{2}$	3 $\frac{1}{2}$	16 $\frac{1}{2}$	3 $\frac{1}{2}$	9 $\frac{1}{2}$	2	9		
"	3 $\frac{1}{2}$	16	3 $\frac{1}{2}$	13	3	13	4	9	3 $\frac{1}{2}$	12		
"	3	12	4	13	3	14	3 $\frac{1}{2}$	12	3 $\frac{1}{2}$	10		
"	3	13	3	11 $\frac{1}{2}$	4 $\frac{1}{2}$	11 $\frac{1}{2}$	3	9	3	14		
"	4 $\frac{1}{2}$	11 $\frac{1}{2}$	3 $\frac{1}{2}$	14	3	12	3 $\frac{1}{2}$	10	3 $\frac{1}{2}$	10		
"	3	12	3	8	3	9	2 $\frac{1}{2}$	12	4	12		
"	3	13	3	9	2	11 $\frac{1}{2}$	4	8	3	13		
"	3	14	4	11 $\frac{1}{2}$	3	11 $\frac{1}{2}$	3	16	3	10		
"	4	11	4 $\frac{1}{2}$	11	3	11	3	9	3	12		
"	3 $\frac{1}{2}$	13	4	9	4	9	2	11	4 $\frac{1}{2}$	13		

Aggregate weight of spleens.....514

Average.....3.426

Aggregate weight of livers.....1709

Average.....11.39

